

Summary of Curriculum Vitae: James D. Ellis

Education:

- 1996, College Preparatory degree, Glascock County High School, Georgia, USA
- 2000, BS degree in Biology, University of Georgia, Athens, Georgia, USA
- 2004, PhD in Entomology, Rhodes University, Grahamstown, South Africa

Research Experience:

- sociobiology, honey bee pathology, ecology, and behavior, pollination ecology, honey bee chemical ecology, bumble bee ecology, honey bee nutrition, sublethal effects of toxins on bees, genetic resistance of honey bees to pests/diseases

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 (94 publications):

- Refereed Scientific Articles (25), Popular Trade Articles (33), Abstracts and Proceedings (21), Theses (2), Posters (7), Newsletters (1), Encyclopedia Entries (5)

Teaching experience:

- 1997, 1999, Laboratory Assistant for Entomology 2500, Honey Bees and Beekeeping, University of Georgia
- 2002, Lectured 2nd year Entomology classes on apiculture, Rhodes University
- 2003, Lectured 2nd year Entomology course, insect behavior, Rhodes University

Student supervision:

- Currently supervise 3 masters (committee chair for 2) and 1 PhD student (chair)
- Supervise undergraduate independent research projects (5 students to date)

Presentations at professional meetings (208 presentations):

- International (8), National (15), State or Provincial (within various countries: 65), Regional (within states or provinces: 114), Departmental (6)

Extension Evaluations:

- Participated in numerous honey bee extension events. While participating, audiences (through evaluations) rated overall performance on average as follows: 4.7 (lectures) and 4.8 (workshops) on scale of 0-5 (>500 evaluations represented)

International collaborations:

- Collaborated with 25 international scientists on various research projects

CURRICULUM VITAE: JAMES D. ELLIS

I. ACADEMIC HISTORY

Name: James D. Ellis, Jr.
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
Date of Birth: 7 October 1977
Marital Status: Married
Current Address: 15223 NW SR 45
High Springs, FL 32643
Email: jdellis@ufl.edu
Phone: 352 392 1901 ext 130 work
386 454 3279 home
Fax: 352 392 0190 work

B. EDUCATION

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

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.

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

C. PROFESSIONAL EMPLOYMENT

1) Assistant Professor of Entomology – University of Florida, August 2006 – Present

Job Description: Lab leader for UF Honey Bee Research and Extension Laboratory. Conduct research on honey bee pathology, ecology, and behavior,

pollination ecology, honey bee chemical ecology, bumble bee ecology, honey bee nutrition, and sublethal effects of toxins on bees. Supervise graduate and undergraduate research projects. Conduct extension programs for beekeepers including UF Bee College, Florida Master Beekeeper Program, and the UF AFBEE (African Bee Extension and Education) Program.

2) Post Doctoral Research Fellow – The University of Georgia, March 2004 – Present

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: Experience using a High Performance Liquid Chromatography (HPLC) machine. Other jobs 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. Publications (Research and Extension - 94)

A. Refereed Journal Articles (25):

1: Review Articles (3)

- 1) 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.
- 2) Ellis, J.D., Munn, P.A. 2005. The worldwide health status of honey bees. *Bee World* 86(4): 88-101. (*Invited Review*).
- 3) 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.

2: Full-length contributions (19), 2 in review, 3 in prep

- 1) 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.
- 2) 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.
- 3) 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.
- 4) 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.
- 5) 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.
- 6) 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.
- 7) 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.

8) 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.

9) 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.

10) 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.

11) 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.

12) 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.

13) 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.

14) 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.

15) 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.

16) 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.

17) 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.

18) 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.

19) 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.

20) Ellis, J.D., Delaplane, K.S. 2008. Small hive beetle (*Aethina tumida*) oviposition behavior in sealed brood cells and the subsequent removal of the cell contents by European honey bees (*Apis mellifera*). *Journal of Apicultural Research*, in review.

21) Ellis, J.D., Hood, W.M., Delaplane, K.S. 2008. Economic threshold for a two-pest complex in honey bees. *Journal of Economic Entomology*, in prep.

22) Ellis, J.D., Spiewok, S., Delaplane, K.S., Tedders, L., Buchholz, S., Neumann, P. 2008. The susceptibility of small hive beetle (*Aethina tumida*, Coleoptera: Nitidulidae) larvae to entomopathogenic nematodes. *Journal of Economic Entomology*, in prep.

23) Ellis, J.D., Delaplane, K.S. 2008. Testing the economic viability of varroa (*Varroa destructor* Oud) IPM. *Journal of Economic Entomology*, in prep.

24) Ellis, J.D., Delaplane, K.S. 2008. A method for rearing small hive beetles (*Aethina tumida*, Coleoptera: Nitidulidae), a pest in honey bee (*Apis mellifera*) colonies, with notes on its reproductive biology. *Apidologie*, in prep.

3: Scientific Notes (3), 1 in press

1) 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.

2) 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.

3) 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.

4) Ellis, J.D., Delaplane, K.S., Cline, A., McHugh, J.V. 2008. The association of multiple sap beetle species (Coleoptera: Nitidulidae) with western honey bee

(*Apis mellifera*) colonies in North America. *Journal of Apicultural Research* incorporating *Bee World*, in press.

B. Trade publications (33):

1: Trade Journals (21)

1) Ellis, J.D. 1996. How honeybees ensure our food supply. *American Bee Journal* 136(7): 501-502.

2) Ellis, J.D. 2001. The future of varroa control: integrating current treatments with the latest advancements. *American Bee Journal* 141(2): 127-131.

3) Ellis, J.D. 2001. IPM and varroa control. *Bee Culture* April, 29-31.

4) Westervelt, D., Causey, D., Neumann, P., Ellis, J., Hepburn, R. 2001. Grease patties worsen small hive beetle infestations. *American Bee Journal* 141(11): 775.

5) Ellis, J.D. 2002. Life behind bars: Why honey bees feed small hive beetles. *American Bee Journal* 142(4): 267-269.

reprinted as: Ellis, J.D. 2002. Freundliche Wärterinnen: honigbienen sperren Kleine Beutenkäfer ein und füttern sie anschließend. *Deutsches Bienen Journal* September, 20-21.

6) Ellis, J.D. 2002. Food for thought: Reproductive success and longevity of small hive beetles. *American Bee Journal* 142(7): 515-518.

7) Ellis, J.D. 2003. Incarceration of small hive beetles. *Bee Culture* February, 24-26.

8) Ellis, J.D. 2003. Hard to guard. *Bee Culture* March, 43-44.

9) Ellis, J.D. 2003. What's new with small hive beetles? Part I. *South African Bee Journal* 75(2): 45-47.

10) Ellis, J.D. 2003. What's new with small hive beetles? Part II. *South African Bee Journal* 75(4): 108-111.

11) Ellis, J.D. 2003. The problematic small hive beetle. *Bee Craft* 85(4): 8-11.

12) Ellis, J.D. 2005. Progress Towards Controlling Small Hive Beetles with IPM: Knowing Our Options. *American Bee Journal* 145(2): 115-119.

reprinted as: 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.

13) Ellis, J.D. 2005. Progress Towards Controlling Small Hive Beetles with IPM: Integrating Current Treatments. *American Bee Journal* 145(3): 207-210.

14) 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.

15) Oi, F.M., Ellis, J.D. 2006. Africanized honey bees. *School IPM Pest Press*. July/August

16) Ellis, J.D. 2006. Just what are those chemicals doing anyway? *British Beekeepers Association Newsletter*, February, 157: 9.

17) Ellis, J.D. 2006. Chemical use in bee colonies: What's the alternative? *British Beekeepers Association Newsletter*, December, 162: 10-11.

18) Ellis, J.D. 2007. The advantages of using nucs. *Bee Culture*, March, 30-32.

19) Ellis, J.D. 2006. African bees and urban trees. *The Council Quarterly*, journal of the Florida Urban Forestry Council, in press.

20) Ellis, J.D. 2007. Colony collapse disorder: An update on the status in the USA. *British Beekeepers Association Newsletter*, August, 166: 7-8.

21) Ellis, J.D. 2007. Plight of the honey bee. *Small Town Living, A simpler life in small town America*. October/November, 41-44.

2: Power Point Presentations (2)

1) Ellis, A.M., Ellis, J.D., Hodges A.C. 2006. Africanized honey bees *Apis mellifera scutellata*. National Plant Diagnostic Network.

2) Ellis, A.M., Ellis, J.D., Hodges A.C. 2006. Africanized honey bees *Apis mellifera scutellata*. National Plant Diagnostic Network.

3: EDIS publications (5)

1) Sanford, M.T., Ellis, J.D. 2006. Florida bears and beekeeping. ENY 105.
<http://edis.ifas.ufl.edu/AA133>

2) Ellis, J.D. 2007. Colony Collapse Disorder in Honey Bees. ENY 150.
<http://edis.ifas.ufl.edu/IN720>

- 3) O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. African honey bee information for school administrators. ENY 142. <http://edis.ifas.ufl.edu/IN740>
- 4) O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. Frequently asked questions about the Africanized honey bee in Florida. ENY 140. <http://edis.ifas.ufl.edu/IN738>
- 5) O'Malley, M.K., Ellis, J.D., O'Neal, A.S. 2007. What to do about African honey bees: A consumer guide. ENY 141. <http://edis.ifas.ufl.edu/IN739>

4: UF Pest Alert (1)

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

5: Website publications (2)

- 1) Ellis, J.D., Oi, F.M. 2006. Africanized honey bees, what's the buzz? *Solutions for Your Life*.
- 2) Ellis, J.D. 2007. Colony collapse disorder, why are honey bees disappearing? *Solutions for Your Life*.

6: Websites (2)

- 1) Honey Bee Research and Extension Laboratory Homepage: <http://entnemdept.ifas.ufl.edu/honeybee/>
- 2) African Bee Extension and Education Program Homepage: <http://afbee.ifas.ufl.edu/>

C: Encyclopedia Entries (5)

- 1) Ellis, J.D., Ellis, A.M. 2007. African honey bee, Africanized honey bee, or killer bee, *Apis mellifera scutellata* Lepeletier (Hymenoptera: Apidae). in J.L. Capinera (ed) *Encyclopedia of Entomology*, Kluwer Academic Publishers, Dordrecht, The Netherlands.
- 2) Ellis, J.D., Ellis, A.M. 2007. Small hive beetle, *Aethina tumida* Murray (Nitidulidae: Coleoptera). in J.L. Capinera (ed) *Encyclopedia of Entomology*, Kluwer Academic Publishers, Dordrecht, The Netherlands.
- 3) Ellis, J.D. 2007. Bee louse, bee fly, or braulid, *Braula coeca* Nitzsch (Diptera: Braulidae). in J.L. Capinera (ed) *Encyclopedia of Entomology*, Kluwer Academic Publishers, Dordrecht, The Netherlands.

4) Ellis, J.D. 2007. Cape honey bees, *Apis mellifera capensis* Escholtz. in J.L. Capinera (ed) *Encyclopedia of Entomology*, Kluwer Academic Publishers, Dordrecht, The Netherlands.

5) Ellis, J.D. 2007. Varroa mite, *Varroa destructor* Anderson and Truemann (Acari: Varroidae). in J.L. Capinera (ed) *Encyclopedia of Entomology*, Kluwer Academic Publishers, Dordrecht, The Netherlands.

D. Abstracts and Proceedings (21):

1) 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.

2) 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.

3) 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.

4) 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.

5) 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.

6) Ellis, J.D., Pirk, C.W.W., Hepburn, H.R., Elzen, P.J. 2001. African honeybees are duped into feeding their prisoners. *Proceedings of the 37th International Apicultural Congress, 28 Oct – 1 Nov 2001*, Durban, South Africa.

7) 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. *Proceedings of the 37th International Apicultural Congress, 28 Oct – 1 Nov 2001*, Durban, South Africa.

8) 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.

9) 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.

10) 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.

11) Ellis, J.D. 2005. Trophallactic interactions between honey bees (*Apis mellifera*) and small hive beetles (*Aethina tumida*). Abstract for the Georgia Entomological Society.

12) 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.

13) 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.

14) 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.

15) 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.

16) 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.

17) Delaplane, K.S. & J.D. Ellis. 2006. Varroa IPM: Does it work? Does it pay? *Proceedings of American Bee Research Conference*, Baton Rouge, Louisiana. *American Bee Journal* 146(5): 446.

18) 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.

19) 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.

20) 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.

21) 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.

E. Theses (2):

1) Ellis, J.D. 2000. Efficacy of a bottom screen device, ApilifeVAR, and Apistan in controlling parasitic mites in honey bee colonies. The University of Georgia, Center for Undergraduate Research Opportunities, Senior Thesis.

2) Ellis, J.D. 2004. The Ecology and Control of Small Hive Beetles (*Aethina tumida* Murray). Rhodes University, PhD Thesis.

F. Posters (7):

1) 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.

2) Ellis, J.D. 2003. Dance communication in honey bees.

3) Ellis, J.D. 2004. Hygienic behavior of Cape and European *Apis mellifera* L. (Hymenoptera: Apidae) toward *Aethina tumida* Murray (Coleoptera: Nitidulidae) eggs oviposited in sealed bee brood.

4) Ellis, J.D. 2005. Trophallactic interactions between honey bees (*Apis mellifera*) and small hive beetles (*Aethina tumida*).

5) 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.

6) 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*).

7) 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*).

G. Newsletters (1):

1) The Florida *Melitto Files* – *Bee News for Bee Lovers*

Supervise and edit the *Melitto Files*, a beekeeping newsletter for Florida Beekeepers. The *Melitto Files* is a joint publication between UF Extension and the Florida Dept of Ag and Consumer Services. It is published quarterly and includes articles on current topics in beekeeping. To date, Volume 1 (2007), issues 1-3 have been published. The newsletter is sent to all Florida beekeepers registered with the FL Dept of Ag.

III. Presentations (Research and Extension - 208)

A. International Presentations (8):

1. Lectures (5)

1) Ellis, J.D. 31 October, 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.

2) Ellis, J.D. 20 August, 2005. Will small hive beetles (*Aethina tumida*) be a global catastrophe or a regional menace? OIE Conference on Diagnosis of Bee Diseases, Dublin, Ireland.

3) Ellis, J.D. 25 August, 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.

4) Ellis, J.D. 22 August, 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.

5) Delaplane, K.S., Ellis, J.D., Berry, J.A. 2007. Profitability of a varroa IPM system. European Honey Bee Health Conference, IBRA, Finland.

2. Posters (3)

1) 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) 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.

3) 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.

B. National Presentations (15):

1. Lectures (14)

1) Ellis, J.D. January 9, 2004 – Advances in small hive beetle research. American Association of Honey Producers, San Antonio, Texas, USA

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. July 7, 2006 – Plenary Session – Life in the big house: the tug-of-war between small hive beetles and honey bees. Heartland Apicultural Society, Vincennes University, Vincennes, Indiana, USA

5) Ellis, J.D. July 7, 2006 – Trouble-shooting in the hive using nucs. Heartland Apicultural Society, Vincennes University, Vincennes, Indiana, USA

6) Ellis, J.D. July 7, 2006 – The natural history of small hive beetles in a nutshell. Heartland Apicultural Society, Vincennes University, Vincennes, Indiana, USA

7) Ellis, J.D. July 8, 2006 – New information on controlling small hive beetles. Heartland Apicultural Society, Vincennes University, Vincennes, Indiana, USA

8) Ellis, J.D. July 8, 2006 – Is varroa IPM economical? Heartland Apicultural Society, Vincennes University, Vincennes, Indiana, USA

9) Ellis, J.D. August 3, 2006 – Small hive beetles: lifestyle and behavior. Eastern Apicultural Society, Young Harris College, Young Harris, Georgia, USA

10) Ellis, J.D. August 4 2006 – Nematodes for small hive beetle control. Eastern Apicultural Society, Young Harris College, Young Harris, Georgia, USA

11) Ellis, J.D. January 2007 – Small hive beetle control. American Beekeeping Federation Annual Meeting, Austin, TX, USA

12) Ellis, J.D. January 2007 – Small hive beetle behavior. American Beekeeping Federation Annual Meeting, Austin, TX, USA

13) Ellis, J.D. January 2007 – Small hive beetle behavior. American Beekeeping Federation Annual Meeting, Austin, TX, USA

14) Delaplaine, K.S., Ellis, J.D. January 2007 – Profitability of a varroa IPM system. American Bee Research Conference, Phoenix, AZ, USA

2. Poster (1)

1) Ellis, J.D. March 26 – April 2, 2003 – Dance communication in honey bees. Sci-Fest, Grahamstown, South Africa.

C. State or Provincial Presentations* (within various countries) (65):

* This section is abbreviated. Details about presentation titles, locations, dates, and audiences are available upon request.

Total Lectures (60), Posters (3), Workshops (2) – Groups included:

(1) Georgia Beekeepers Association (GA, USA), (2) Queensland Beekeepers Association (Queensland, Australia), (3) South Carolina Beekeepers Association (SC, USA), (4) Alabama Beekeepers Association (AL, USA), (4) Georgia Entomological Society (GA, USA), (5) Indiana State Beekeepers Association (IN, USA), (6) California Beekeepers Association (CA, USA), (7) Virginia Beekeepers Association (VA, USA), (8) Kentucky State Beekeepers Association (KY, USA), (9) Florida State Beekeepers Association (FL, USA), (10) Mississippi Beekeepers Association (MS, USA), (11) California State Beekeepers Association (CA, USA), (12) Iowa Honey Producer's Association (IA, USA), (13) FL Dept of Ag and Consumer Services, State Bee Inspectors' Meeting (FL, USA), (14) Mid-Ulster Beekeepers Association, (Northern Ireland), (15) Institute for Northern Ireland Beekeepers, Hillsborough (Northern Ireland), (16) Mid-Atrium/Randalstown Beekeepers Association, Atrim (Northern Ireland), (17) Somerset Beekeepers Association, Cheddar (England), (18) Yeovil Beekeepers Association, Yeovil (England), (19) Florida Entomological Society, Tampa Bay, FL (USA), (20) Minnesota Honey Producers Association, MN (USA), (21) Florida Environmental Health Association, FL (USA), (22) Florida School Plant Management Association, Orlando, FL (USA), (23) Arkansas State Beekeepers

Association, Mountain View, AR (USA), (24) Illinois State Beekeepers Association, Springfield, IL (USA), (25) Georgia Farm Bureau Association, Jekyll Island, GA (USA)

D. Regional Presentations* (regional within various US states) (114):

* This section is abbreviated. Details about presentation titles, locations, dates, and audiences are available upon request.

Total Lectures (109), Posters (3), Workshops (2)

Groups included:

(1) Kiwanis Club, Warrenton, GA (USA), (2) Garden Club, Warrenton, GA (USA), (3) Eastern Piedmont Beekeepers Association, Watkinsville, GA (USA), (4) Metro-Atlanta Beekeepers Association, Atlanta, GA (USA), (5) Warren County Soil and Water Conservation, Warrenton, GA (USA), (6) Ball Ground Honey Bee Short Course, Ball Ground, GA (USA), (7) Tara Beekeepers Association, Atlanta, GA (USA), (8) North Georgia Beekeepers Association, Clarkesville, GA (USA), (9) Cherokee County Beekeepers Association, Cherokee County, GA (USA), (10) East Georgia Beekeepers Association, Waynesboro, GA (USA), (11) Coastal Empire Beekeepers Association, Savannah, GA (USA), (12) Foothill Georgia Beekeepers Association, Homer, GA (USA), (13) Lakeland Beekeepers Association, Greenwood, SC (USA), (14) Appalachian Technical College Beekeeping Short Course, Jasper, GA (USA), (15) Northwest Georgia Beekeepers Association, Lafayette, GA (USA), (16) Northeast Florida Beekeeping Short course, Green Cove Springs, FL (USA), (17) Coweta County Beekeepers Association Short Course, Newnan, GA (USA), (18) Mountain Beekeepers Association, Young Harris, GA (USA), (19) Cherokee Beekeeper Association Short Course, Woodstock, GA (USA), (20) Piedmont Beekeepers Association, Greenville, SC (USA), (21) Forsyth County Beekeepers Association, Cumming, GA (USA), (22) Alachua County Master Gardeners, Gainesville, FL (USA), (23) Tampa Bay Beekeepers Association, Tampa Bay, FL (USA), (24) Alachua County Master Naturalists, Gainesville, FL (USA), (25) Florida Pest Management Association, Panhandle Branch, Tallahassee, FL (USA), (26) Capeloutos Pest Control, Tallahassee, FL (USA), (27) Florida Master Gardeners, Gainesville, FL (USA), (28) Florida School IPM working group, Gainesville, FL (USA), (29) Tri-County Beekeepers Association, Wooster, OH (USA), (30) Clay County Honey Bee Short Course, Green Cove Springs, FL (USA), (31) North East Florida Beekeepers Association, Green Cove Springs, FL (USA), (32) Tampa Bay Prison Beekeeping School, Tampa Bay, FL (USA), (33) UF European Euphoria, Gainesville, FL (USA), (34) Florida Public Educators Conference, Orlando, FL (USA), (35) Dadant and Sons Beekeeping Field Day, High Springs, FL (USA), (36) West Palm Beach Beekeepers Association, West Palm Beach, FL (USA), (37), Florida Pest Management Association, Orlando, FL (USA), (38) UF Extension Symposium, Gainesville, FL (USA), (39) Michiana Beekeepers

Association, IN (USA), (40) FL Dept of Ag Pesticide Review Council, Gainesville, FL (USA), (41) Florida Honey Bee Technical Council, Gainesville, FL (USA), (42) Alachua County Agricultural Tour, Gainesville, FL (USA), (43) Homestead Beekeepers Meeting, Homestead, FL (USA), (44) Florida Branch of the Southern Plant Diagnostic Network, (45) Escarosa Beekeepers Association, FL (USA)

E. Departmental Seminars (6):

- 1) Ellis, J.D. 25 October 2002 – The efficacy of a bottom screen device and reduced hive entrances at controlling small hive beetles. Rhodes University, Grahamstown, South Africa
- 2) Ellis, J.D. 4 June 2003 – Insect Prisons: life in the big house, social confinement of small hive beetles by Cape and European honeybees. Rhodes University, Grahamstown, South Africa
- 3) Ellis, J.D. 21 November 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
- 4) Ellis, J.D. 13 January 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
- 5) Ellis, J.D. 23 January 2006 – Ex Africa Semper Aliquid Novi: Out of Africa, always something new. Department of Entomology and Nematology, University of Florida, Gainesville, Florida, USA
- 6) Ellis, J.D. 24 January 2006 – What you need to know about Africanized honey bees. Department of Entomology and Nematology, University of Florida, Gainesville, Florida, USA

IV. INSTRUCTIONAL ACTIVITIES

A. TEACHING EXPERIENCE

| Year and Quarter/Semester | Course | Enrollment |
|---------------------------|---|------------|
| ¹ Spring 1997 | <ul style="list-style-type: none">• Entomology 2500 Laboratory Assistant, Honey bees and beekeeping, The University of Georgia, USA | 12 |

| | | |
|---|---|-----|
| ¹ Spring 1999 | • Entomology 2500 Laboratory Assistant, Honey bees and beekeeping, The University of Georgia, USA | 15 |
| ² Winter 2002 | • 2 nd Year Entomology- Apiculture, Rhodes University, South Africa | 10 |
| ² Summer 2003 | • Social Insect Behavior | 17 |
| ³ Fall 2006, Spring 2007, Summer 2007, Fall 2007 | • Apiculture lab, guest lecturer for Principles of Entomology, University of Florida | 250 |
| ⁴ Spring 2007, Fall 2007 | • Graduate research problems in entomology | 2 |
| ⁵ Fall 2007, Spring 2008, Summer 2008 | • Supervise undergraduate research projects | 3 |

¹The 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.

²Rhodes 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.

³University of Florida: Beginning fall semester 2006 and every semester thereafter. Taught ‘Principles of Entomology’ Apiculture lab.

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 2007 and miscellaneous semesters thereafter. Supervised undergraduate student research projects. Taught undergraduates research principles, how to conduct independent research, and the art of publishing scientific manuscripts.

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

- 1) Jason Graham (Masters in Entomology, committee Chair)
Project: The potential ecological interaction between small hive beetles and bumble bees
Projected Graduation: December 2008
- 2) Tricia Toth (Masters in Entomology, committee Chair)
Project: The sublethal effects of imidacloprid and Amitraz on the susceptibility of honey bee larvae to varroa
Projected Graduation: December 2008
- 3) Josephine Ratikan (Masters in Entomology, committee member)
Project: The symbiotic relationship between small hive beetles and *Kodamaea ohmeri*
Projected Graduation: May 2008
- 4) Edward Atkinson (PhD in Entomology, committee Chair)
Project: The development of symbiotic relationships between honey bees and their nest invaders
Projected Graduation: May 2011

D: UNDERGRADUATE STUDENT INDEPENDENT RESEARCH SUPERVISION

- 1) Cameron Richards, Rhodes University South Africa
Project title: The hygienic removal of sealed bee brood that has been oviposited in by small hive beetles
Course date: Spring 2004

- 2) Mark Doolan, Rhodes University South Africa
Project title: The susceptibility of small hive beetles to various soil fungi
Course date: Spring 2004

- 3) Megan Magee, University of Florida
Project: Fungal effects on small hive beetle pupation success
Course date: Fall 2007

- 4) Scott Knepper, University of Florida
Project: Disease transmission between honey bee colonies
Course date: Spring 2008

- 5) Sparky Vilsaint, University of Florida
Project: The effects of wood preservatives on honey bee mortality
Summer Internship: Summer 2008

V. EXTENSION ACTIVITIES

A. CONTINUING EDUCATION EVALUATIONS

Teaching evaluations by extension audiences, on a scale of 5 (excellent) to 1 (poor). On average, lectures have earned a 4.7 while workshops a 4.8. Mean scores include 500+ evaluations each for lectures and workshops given over a 9 year period. Specific scores and a list of lectures/workshops given are available upon request.

B: EXTENSION PROGRAMS CREATED

1: The University of Florida Master Beekeeper Program

Created in 2007, the University of Florida 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. The Master Craftsman level is comparable to a Masters degree in apiculture at a major university. Although created in summer 2007, the first round of testing for the UF Master Beekeeper Program is available in March of 2008. Details can be found at: <http://entnemdept.ifas.ufl.edu/honeybee/>.

2: The University of Florida Bee College

The University of Florida Bee College opened its doors in March 2008. The annual two-day event has two educational tracks, one for beginners and another for experienced beekeepers. 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 US's top honey bee researchers. 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 CCD, 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: <http://entnemdept.ifas.ufl.edu/honeybee/>.

3: The African Bee Extension and Education (AFBEE) Program

The University of Florida Honey Bee Research and Extension Laboratory headed the 2007 creation of the AFBEE (**A**frican **B**ee **E**xtension and **E**ducation) program in response to the growing presence of African honey bees in Florida. This program is designed to educate every Florida citizen and visitor about the presence of and living with AHBs. Within the auspices of the AFBEE program, fourteen Florida clientele groups were identified 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) power point 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. More information about the AFBEE program can be found at: <http://afbee.ifas.ufl.edu/>.

4: UF DEPARTMENT OF ENTOMOLOGY AND NEMATOLOGY YOUTH OUTREACH PROGRAM

Ellis serves as the outreach coordinator for the UF Department of Entomology and Nematology. The purpose of the outreach program is to educate Florida youth about the behavior, biology, diversity, and importance of insects. Within the auspices of this program, Ellis organizes UF Ent/Nem Dept outreach activities such as state fair displays, creation of entomologically based educational curricula, school demonstrations, etc. Ellis also supervises the Ent/Nem Dept student outreach coordinator. This position is held by a graduate student who has responsibilities in extracurricular entomology education for school students in Florida.

C: EXTENSION CONTACTS

*Data on extension contacts has been collected only since September 2006:

- 1. Total Extension Presentations:** 111
- 2. Total Audience in Attendance:** 4559
- 3. Total Clientele Contacts:** 7673
 - a) phone – 672
 - b) email – 5778
 - c) personal contact – 1223

* Based on estimations taken at time of contact, approximately 94,975 people have been helped via information given through the contacts made

D: VIDEO/TELEVISION COLLABORATIONS AND INTERVIEWS

1. Video/television/radio

*Millions of people have been reached through the following video, television, and radio outlets.

- 1) 2002 - Collaborator for: Kastberger, G. (ed.) African honeybees and small hive beetles
- 2) 2004 - Special guest/honey bee expert for the show *Fresh from the Garden* on the *Do It Yourself Network*
- 3) 2005 - Interviewed by the Georgia Farm Bureau concerning the national honey bee health status
- 4) 2005 – Special guest/honey bee expert for the Joe Gardener Radio Show on 920 WGKA, Atlanta, GA.
- 5) 2006 – Special guest honey bee expert for the Georgia Public Broadcasting radio show in Savannah, GA. African honey bees were the topic.
- 6) 2007 – Special guest honey bee expert for video: *Living with Africanized Honey Bees*, Florida Department of Agriculture and Consumer Services
- 7) 2007 – Special guest honey bee expert for video: *Bee Proofing for Florida Citizens*, St. Lucie County, FL, extension program
- 8) 2007 – Bee Expert for UF Genetics STEP videos. The following bee educational videos were produced and posted on Youtube.com:
 - a) I Heart Honey Bees (the importance of honey bees) – 2 minutes
 - b) Show Me the Honey (how bees make honey) – 2 minutes
 - c) Where are the Bees? (disappearing bee phenomenon) – 3 minutes
 - d) Bee Love (the roles of male and female bees) – 4 minutes
 - e) Public Enemy #1: African Bees – 3 minutes
 - f) Honey, I'm Home – 2 minutes
- 9) 2007 – Bee Expert for Florida National Public Radio. Discussed colony collapse disorder.
- 10) 2007 – Bee Expert for CNN. Discussed colony collapse disorder.
- 11) 2007 – Bee Expert for Good Morning America. Discussed colony collapse disorder.

2. Newspaper/magazine

*This section is abbreviated. I have given 50+ newspaper/magazine interviews on many honey bee topics ranging from African honey bees to colony collapse disorder. Thousands (probably millions) of people have been reached through my newspaper/magazine interviews. Sample articles which report my interviews are available upon request.

VI. RESEARCH ACTIVITIES

A. CURRENT RESEARCH PROJECTS

| Year | Project | Level of Involvement |
|-------------|---|-----------------------------|
| 2007-2009 | 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 | PI |

| | | |
|-----------|--|---------------------------------------|
| 2007-2009 | IPM control of the small hive beetle | co-PI with U of GA and Clemson U |
| 2007-2008 | Field attraction of small hive beetles to bumble bee nests | graduate student supervisor – U of FL |
| 2007-2008 | Volatile profile of bumble bee colonies | graduate student supervisor – U of FL |
| 2007-2008 | Small hive beetle attraction to volatiles from bumble bee colonies | graduate student supervisor – U of FL |
| 2007-2008 | Is <i>Kodamaea ohmeri</i> present in bumble bee colonies | graduate student supervisor – U of FL |
| 2007-2008 | Do small hive beetles mechanically transmit bee diseases between colonies | PI – U of FL |
| 2007-2008 | Sublethal effects of imidacloprid and Amitraz on bee larvae development | graduate student supervisor – U of FL |
| 2007-2008 | Sublethal effects of imidacloprid and Amitraz on larval susceptibility to varroa depredation | graduate student supervisor – U of FL |
| 2008-2011 | Development of symbiotic relationships between honey bees and their nest invaders | graduate student supervisor – U of FL |
| 2007-2008 | Determining an economic threshold for varroa in Florida bee colonies | collaborator with FL Dept of Ag |
| 2007-2008 | Testing the efficacy of small cell foundation for varroa control | collaborator with FL Dept of Ag |
| 2007-2008 | Testing the efficacy of powdered sugar dusting as a varroa control | collaborator with FL Dept of Ag |
| 2007-2008 | Determining where small hive beetles harbor <i>Kodamaea ohmeri</i> | collaborator with USDA |
| 2007-2008 | Determining importance of <i>Kodamaea ohmeri</i> in small hive beetle life cycle | collaborator with USDA |
| 2007-2008 | Determining efficacy of Apiguard as a control for nosema and tracheal mites | co-PI with FL Dept of Ag |
| 2008 | Determining spread and severity of <i>Nosema apis</i> | co-PI with U Minn, U |

B: GRANTS RECEIVED, SELF-SUPPORTING PROGRAMS, AND ENDOWMENTS (TOTAL = \$392,861)

| Year | Source | Amount | Project Title |
|-----------|--|----------|--|
| 2000 | Georgia Beekeepers Association | \$500 | Biology and control of small hive beetles |
| 2001 | Georgia Beekeepers Association | \$500 | Biology and control of small hive beetles |
| 2002 | Georgia Beekeepers Association | \$500 | Biology and control of small hive beetles |
| 2004-2006 | Georgia Beekeepers Association (grant author) | \$2540 | Biological control of small hive beetles |
| 2004-2006 | EPA Strategic Agricultural Initiative Grant (grant coauthor) | \$89,564 | Implementing proven varroa IPM practices to reduce pesticide use in beekeeping |
| 2006-2007 | Florida Department of Agriculture and Consumer Sciences | \$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 |
| 2006-2008 | Florida Department of Agriculture and Consumer Sciences | \$23,000 | Developing a comprehensive <u>Africanized honey Bee Extension and Education</u> program (AFBEE program) |
| 2006-2007 | Florida IPM | \$5,300 | Protecting Florida's schools and homes from Africanized honey bees |
| 2006-2008 | Florida State Beekeepers Association | \$3,000 | Determining an economic threshold for varroa mites in Florida |
| 2007-2008 | Florida State Beekeepers Association | \$4,000 | Determining efficacy of small cell foundation as a control for varroa mites |
| 2007-2009 | Southern Region IPM Center | \$61,624 | Building a comprehensive IPM program against small hive beetles |
| 2007-2008 | Florida Department of Agriculture and Consumer Sciences | \$28,293 | Increasing African honey bee awareness via the <u>African Honey Bee Extension and Education</u> program (AFBEE program) |
| 2007-2008 | Florida Department of Agriculture and Consumer Sciences | \$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 | University of | \$10,000 | <u>African Honey Bee Extension and</u> |

| | | | |
|-----------|-----------------------------------|----------|---|
| | Florida program enhancement grant | | Education (AFBEE) Program – Educating Floridians about the threat of African bees |
| 2007-2008 | Florida IPM | \$5,800 | IPM Education for Beekeepers: Battling the Chemocentric Mindset |
| 2007-2009 | Straughn Farms, Inc. | \$45,240 | 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 |

C. RESEARCH ASSISTED IN

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

| Year | Project |
|-------------|---|
| 1996 | Tested a proprietary antibiotic and its effects on honey bee longevity – University of Georgia |
| 1997 | Tested efficacy of the slatted rack in promoting brood production in bee colonies – University of Georgia |
| 1996-1997 | Measured species frequency and pollinating behavior of bees in rabbiteye blueberry – University of Georgia |
| 1996-1998 | Developed treatment thresholds for IPM-oriented control of Varroa mites – University of Georgia |
| 1997-1999 | Tested effects of old comb verses new comb on colony growth and development – University of Georgia |
| 1999 | Tested effects of two methods of configuring bee colonies for honey production – 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 |
| 2000-2002 | Tested efficacy of honey bees as pollinators of rabbiteye blueberry – 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
- 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
- 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
- 2002-2003 Assessed methods used to determine population densities of kudu, bushbuck, blue duiker and common duiker in South Africa – University of Georgia
- 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
- 2007-present Research into location of *Kodamaea ohmeri* on/in small hive beetles – University of Florida
- 2007-present Evaluated importance of *Kodamaea ohmeri* to small hive beetle life cycle – University of Florida
-
-

D. INVITED REFEREE

1. Research journal articles (journal titles and the number of times served as a referee in parentheses – total 28):

- 1) *Bee World* (1)
- 2) *Journal of Apicultural Research* (7)
- 3) *Apidologie* (9)
- 4) *Journal of Economic Entomology* (4)

- 5) *American Bee Journal* (3)
- 6) *Journal of Insect Behavior* (1)
- 7) *Journal of Pest Science* (1)
- 8) *Letters in Applied Microbiology* (2)

2. Radio Programs

- 1) National Public Radio – Gardening in a Minute – program review of *Honey*.

3. Florida Pesticide Label Applications

- 1) Label expansion for Provado (on watercress)
- 2) Label expansion for Spinosad (fruit fly bait)
- 3) Label expansion for Agri-MEK (control of citrus leafminers)

4. Miscellaneous (number of times served as a referee in parentheses)

- 1) Florida Department of Agriculture and Consumer Services – Ag in the Classroom honey bee curriculum (1)
- 2) USDA publication pre-submittal review (3)

E. FEATURED RESEARCH

The following are international venues that have featured my research:

- 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)
[wysiwyg://21/http://www.nature.com/nsu/020513/020513-7.html](http://www.nature.com/nsu/020513/020513-7.html).
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F. 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) Professor H. Randall Hepburn, Professor of Entomology, Rhodes University, Grahamstown, South Africa
- 2) Professor Keith S. Delaplane, Professor of Entomology, University of Georgia, Athens, Georgia, USA
- 3) Professor W. Michael Hood, Professor of Entomology, Clemson University, Clemson, South Carolina, USA
- 4) Dr. Christian W. W. Pirk, Post-doctoral fellow, Universität Würzburg, Würzburg, Germany
- 5) Dr. Peter Neumann, Post-doctoral fellow, Martin-Luther-Universität Halle-Wittenberg, Halle/Salle, Germany
- 6) Dr. Patti J. Elzen, USDA-ARS Kika de la Garza Subtropical Research Station, Weslaco, Texas, USA
- 7) Professor Gerald Kastberger, Institute of Zoology, Department of Neurobiology, University of Graz, Graz, Austria
- 8) Alexandra Solbrig, MSc, Freie Universität Berlin, Berlin, Germany
- 9) Anna Flügge, MSc, Freie Universität Berlin, Berlin, Germany
- 10) Professor Sarah Radloff, Professor of Statistics, Rhodes University, Grahamstown, South Africa
- 11) Dr. Martin Hill, Department of Zoology and Entomology, Rhodes University, Grahamstown, South Africa

- 12) Dr. Isabel H. Rong, ARC: Plant Protection Research Institute, Biosystematics Division: Mycology, Queenswood, South Africa
- 13) Mr. Barry R.M. Luckman, Chicory South Africa Ltd., Alexandria, South Africa
- 14) Mr. Louis Tedders, Southeastern Insectaries, Perry, Georgia, USA.
- 15) Dr. Joseph McHugh, Department of Entomology, University of Georgia, Athens, Georgia, USA.
- 16) Dr. Andrew Cline, California Department of Food and Agriculture, California, USA.
- 17) Dr. Pamela Munn, International Bee Research Association, Cardiff, UK.
- 18) Professor Drion Boucias, Department of Entomology and Nematology, University of Florida, Gainesville, FL, USA
- 19) Dr. Peter Teal, USDA-ARS Center for Medical and Veterinary Entomology, Gainesville, FL, USA
- 20) Dr. Nicole Benda, USDA-ARS Center for Medical and Veterinary Entomology, Gainesville, FL, USA
- 21) Dr. Mark Carrol, USDA-ARS Center for Medical and Veterinary Entomology, Gainesville, FL, USA
- 22) Professor Marla Spivak, Department of Entomology, University of Minnesota, Twin Cities, MN, USA
- 23) Professor Tom Webster, Department of Entomology, Kentucky State University, Frankfort, KY, USA
- 24) Dr. Amanda Ellis, Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA
- 25) Mr. Jerry Hayes, Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA

VII. OTHER PROFESSIONAL ACTIVITIES

A. FOREIGN TRAVEL EXPERIENCE

- 1) Canada – 3 weeks
- 2) Mexico – 1 day
- 3) Ghana – 3 weeks
- 4) France – 1 day
- 5) Switzerland – 1 week
- 6) Italy – 1 week
- 7) South Africa – 3 years
- 8) Australia – 2 weeks
- 9) Bangladesh – 2 weeks
- 10) Ireland – 10 days
- 11) Northern Ireland – 1 week, 1 day
- 12) Haiti – 2 weeks
- 13) England – 1 week

B. PROFESSIONAL MEMBERSHIPS

- 1) Georgia Beekeepers Association (2004-2005)
- 2) Georgia Entomological Society (2005-2007)
- 3) International Union for the Study of Social Insects, IUSI (2006-present)
- 4) Eastern Apicultural Society (2006-2007)
- 5) Florida Honey Bee Technical Council (2006-present)
- 6) Florida Africanized Bee Advisory Committee (2006-present)
- 7) Florida Farm Bureau Honey Bee Advisory Committee (2007-present)
- 8) Entomological Society of America (2007-present)
- 9) International Bee Research Association (2008-present)

C. 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

D. FOREIGN VOLUNTEER SERVICE

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.

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.

VIII. RECOGNITION, OUTSTANDING ACHIEVEMENTS

A. PROFESSIONAL AWARDS

- 1) 2003, Selected for “Who’s Who in Science and Engineering” by Marquis Who’s Who.
- 2) 2005, Oliver I. Snapp Award for Outstanding Research Presentation, Georgia Entomological Society.
- 3) 2006, Oliver I. Snapp Award for Outstanding Research Presentation, Georgia Entomological Society.
- 4) 2007, Roger Hoopingarner Award for Most Outstanding Research Presentation at Annual Meeting, American Beekeeping Federation.
- 5) 2007, Research of the Year, Florida State Beekeepers Association

IX. COMMUNITY SERVICE/WORK

A. PROFESSIONAL

- 1991-present, owned and managed 7-15 honey bee colonies and marketed honey. Attended many festivals at which I marketed honey and educated the public about bees
- 1991-present, gave numerous beekeeping demonstrations to local clubs and organizations, including schools
- 1991-present, bee-removal services: removed honey bee colonies from people’s houses and other such structures
- 1994-present, made numerous on-site consultations to beekeepers in the US and globally. Advised many beekeepers on colony maintenance and diagnosed many colony problems for beekeepers
- 1994-1996, helped migratory beekeeper, Ron Dalke, manage his 1000 honey bee colonies. Jobs included general colony maintenance, honey production, and migratory beekeeping work
- 1995-1999, supplied pollination services for blueberry farmer, Thomson, Georgia
- 1996-present, taught basic beekeeping techniques to numerous beginner beekeepers. Contact with these beekeepers is still maintained
- 1996-2000, managed observation hive for Rock Eagle 4-H Center, Eatonton, Georgia, USA
- 2001-2003, lived in South Africa, experiencing a wide range of cultural and informational differences.
- 2002-present, write research reports for state beekeeping newsletters (states within the United States)

B. COMMUNITY/CHURCH

- 1995-present, speak at numerous churches, youth retreats, lock-ins, youth rallies, and other such events (over 70 times)
- 1996, tutored four middle school children in the areas of math, reading, and vocabulary
- 1996, attended the National Youth Science Camp in West Virginia. Two high school seniors are chose from each state in the USA to attend the National

Youth Science Camp. In order to be chosen, the students had to display excellence in the field of general science

- 1996-1997, worked on numerous projects with the Habitat for Humanity. This is an organization that does construction work for people who are unable to afford it
- 1996-present, lay speaker for various churches
- 1997-present, counsel many youth, including rape victims, substance abusers, and children from broken homes
- 1997 – present, counselor/recreation leader/teacher/pastor, Washington Baptist Association Youth Camp
- 1997, member of a mission team that went to Ghana, West Africa to build a house for a preacher in the region
- 1997, interviewed by a local television station concerning mission trip to Ghana, West Africa
- 1999, planned and directed Sparta Baptist Church's Vacation Bible School
- 1999-2000, planned and directed one Youth Sunday every month at Sparta Baptist Church, Sparta, Georgia
- 1999 - present counselor, Washington Baptist Association Youth Retreat, Norman Park, Georgia
- 2001-2003, guest speaker at numerous Christian meetings in Grahamstown, South Africa, including meetings Grahamstown Baptist Church, Graeme College (the public high school for boys) and Victoria Girls School (the public high school for girls)
- 2003, founding member of the 26:8 Society at Rhodes University, Grahamstown, South Africa. The society was newly formed in 2003 and is a non-denominational Christian society at Rhodes
- 2003, Sunday school teacher for Grahamstown Baptist Church, Grahamstown, South Africa (taught the youth, ages 13-18)
- 2003-2004, worked with St. Vincent de Paul organization in Sparta Georgia., a group that lends financial assistance to those in need.
- 2003-2004, worked with Helping Hands in Hancock County (Georgia, USA); a program where food is distributed to families in need
- 2007-Present, bivocational youth minister at Mt. Pleasant Baptist Church in High Springs, FL.

X. REFERENCES

Academic References:

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