## David E. Dussourd

## Education

1986 Ph.D., Neurobiology and Behavior, Cornell University

1979 B.A., Biology (concentration in ecology), Dartmouth College

Magna Cum Laude

## **Employment**

2002-present	Professor, Department of Biology, University of Central Arkansas
1994-02	Associate Professor, Department of Biology, University of Central Arkansas
1991-94	Assistant Professor, Department of Biology, University of Central Arkansas
1985-90	Research Associate, Department of Entomology, University of Maryland,
	College Park

## **Teaching Experience**

University of Central Arkansas (1991-present)

Introductory Biology Seminar	2 semesters
Biology for General Education (lecture and labs)	1 semester
Principles of Biology II (lecture and labs)	27 semesters
General Zoology (lecture and labs)	9 semesters
Animal Behavior (lecture and lab)	18 semesters
Invertebrate Zoology (lecture and lab)	4 semesters
Entomology (lecture and lab)	8 semesters
Behavioral Ecology (graduate seminar)	1 semester
Biology of Insects: Molecules to Societies (graduate seminar)	1 semester
Plant-Animal Interactions (graduate seminar)	1 semester
Biology and Society: Issues and Perspectives (graduate seminar)	2 semesters
Chemical Ecology (graduate seminar)	1 semester
Behavior: Applications and Recent Advances (graduate seminar)	1 semester

University of Maryland (1984-90)

Behavioral Ecology of Insects (graduate seminar)	1 semester
General Entomology, Insect Ecology, Insect Physiology	Guest lectures

Cornell University (1979-80, 81-82) - Graduate TA

General Biology 1 year General Biology for Nonmajors 1 year

Dartmouth College (1979) - Undergraduate Lab Instructor

Organic Chemistry 1 semester
General Biology 1 semester

## **Publications**

- 25. Hurley, K.W. and Dussourd, D.E. 2015. Toxic geranium trichomes trigger vein cutting by soybean loopers, *Chrysodeixis includens* (Lepidoptera: Noctuidae). <u>Arthropod-plant interactions</u> 9(1): 33-43 DOI 10.1007/s11829-014-9348-6
- 24. Ganong, C.N., Dussourd, D.E., and J.D. Swanson. 2012. Girdling by notodontid caterpillars: Distribution and occurrence. <u>Arthropod-plant interactions</u> 6: 621-633.

- 23. Peppers, K.C., Dussourd, D.E., Hirrel, M.C., Miller, J.D., Runge, S.W., and B.M. Waggoner. 2012. Biology for General Education lab manual. Hayden McNeil, Plymouth, MI.
- 22. Oppel, C.B., Dussourd, D.E., and U. Garimella. 2009. Visualizing a plant defense and insect counterploy: Alkaloid distribution in *Lobelia* leaves trenched by a plusiine caterpillar. <u>I. Chem. Ecol.</u> 35: 625-634.
- 21. Dussourd, D.E. 2009. Do canal-cutting behaviors facilitate host-range expansion by insect herbivores? <u>Biol. J. Linnean Soc.</u> 96: 715-731.
- 20. Dussourd, D.E. 2005. In the trenches: Bioprospecting with a caterpillar probe. <u>Wings: Essays</u> in Invertebrate Conservation 28: 20-24.
- 19. Helmus, M.R.\* and D.E. Dussourd. 2005. Glues or poisons: Which triggers vein cutting by monarch caterpillars? <u>Chemoecology</u> 15: 45-49.
- 18. Dussourd, D.E. 2003. Chemical stimulants of leaf-trenching by cabbage loopers: Natural products, neurotransmitters, insecticides, and drugs. <u>J. Chem. Ecol.</u> 29:2023-2047.
- 17. Tune, R.\* and D.E. Dussourd. 2000. Specialized generalists: Constraints on host range in some plusiine caterpillars. <u>Oecologia</u> 123: 543-549.
- 16. Dussourd, D.E. and A.M. Hoyle\*. 2000. Poisoned plusiines: Toxicity of milkweed latex and cardenolides to some generalist caterpillars. <u>Chemoecology</u> 10:11-16.
- 15. Dussourd, D.E. 1999. Behavioral sabotage of plant defense: Do vein cuts and trenches reduce insect exposure to exudate? J. Insect Behavior 12:501-515.
- 14. Dussourd, D.E. 1997. Plant exudates trigger leaf-trenching by cabbage loopers, *Trichoplusia ni*. Oecologia 112:362-369.
- 13. Dussourd, D.E. 1995. Entrapment of aphids and whiteflies in lettuce latex. <u>Ann. Entomol. Soc. Am.</u> 88:163-172.
- 12. Dussourd, D.E. and R.F. Denno. 1994. Host range of generalist caterpillars: Trenching permits feeding on plants with secretory canals. Ecology 75:69-78.
- 11. Dussourd, D.E. 1993. Foraging with finesse: Caterpillar adaptations for circumventing plant defenses. Pages 92-131 *in* N.E. Stamp and T. Casey, eds. Caterpillars: Ecological and evolutionary constraints on foraging. Chapman and Hall, New York.
- 10. Dussourd, D.E., Harvis, C.A.\*, Meinwald, J. and T. Eisner. 1991. Pheromonal advertisement of a nuptial gift by a male moth (*Utetheisa ornatrix*). Proc. Natl. Acad. Sci. 88:9224-9227.
- 9. Dussourd, D.E. and R.F. Denno. 1991. Deactivation of plant defense: Correspondence between insect behavior and secretory canal architecture. <u>Ecology</u> 72:1383-1396.
- 8. Farrell, B., Dussourd, D.E., and C. Mitter. 1991. Escalation of plant defense: Do latex and resin canals spur plant diversification? <u>American Naturalist</u> 138:881-900.
- 7. Dussourd, D.E. 1990. The vein drain; or, how insects outsmart plants. <u>Natural History</u> 90(2): 44-49.

- 6. Dussourd, D.E., Harvis, C.A.\*, Meinwald, J., and T. Eisner. 1989. Paternal allocation of sequestered plant pyrrolizidine alkaloid to eggs in the danaine butterfly, *Danaus gilippus*. Experientia 45: 896-898.
- 5. Krasnoff, S.B. and D.E. Dussourd. 1989. Dihydropyrrolizine attractants for arctiid moths that visit plants containing pyrrolizidine alkaloids. J. <u>Chem. Ecol.</u> 15: 47-60.
- 4. Dussourd, D.E., Ubik, K., Harvis, C.\*, Resch, J., Meinwald, J., and T. Eisner. 1988. Biparental defensive endowment of eggs with acquired plant alkaloid in the moth *Utetheisa ornatrix*. Proc. Natl. Acad. Sci. 85: 5992-5996.
- 3. Dussourd, D.E. and T. Eisner. 1987. Vein-cutting behavior: Insect counterploy to the latex defense of plants. <u>Science</u> 237: 898-901.
- 2. Dussourd, D.E. 1986. Adaptations of Insect Herbivores to Plant Defenses. Dissertation, Cornell University, Ithaca, New York.
- 1. Jain, S.C., Dussourd, D.E., Conner, W.E., Eisner, T., Guerrero, A. and J. Meinwald. 1983. Polyene pheromone components from an arctiid moth (*Utetheisa ornatrix*): Characterization and synthesis. J. Org. Chem. 48: 2266-2270.

## Awards and Honors

2012	UCA Teaching Excellence Award (finalist in 2002 and 1996)
1997, 1998	UCA Nominee for the CASE U.S. Professor of the Year Award
1997	UCA Research, Scholarship, and Creative Activity Award
1984	Phi Kappa Phi
1983, 1984	Sage Graduate Fellowship, Cornell University
1982	Allen Seymour Olmstead Fellowship, Cornell University
1980	NIH Traineeship, Neurobiology and Behavior, Cornell University
1979	Phi Beta Kappa

## Administrative Experience

Graduate Coordinator of Biology 2001- summer 2009

In 8 years, the number of graduate students active in our program increased from 9 to 25; the number of teaching assistants in Biology likewise increased from 4 to 20. All students completing degrees 2001 – summer 2009 successfully gained employment in biology or were admitted to professional or graduate programs. Eleven students completed their MS thesis degree in 2009, a substantial increase over 3 students in 2000. These improvements were the result of efforts by many faculty and administrators; I am pleased to have been part of this effort. My contributions included preparing a guide for graduate students, instituting an evaluation program for improving teaching skills, and administering the day to day responsibilities involved in recruiting students, advising graduate students and faculty, evaluating faculty for appointment as Graduate Faculty, assigning TAs to labs, etc. In fall 2009, the 20 Biology TAs taught 43 labs in 5 courses, prepared labs for 3 courses, served in the UCA writing center, Nature Reserve, Graphics Lab, etc.

#### Associate Chair of Biology fall 2009-spring 2010

Responsibilities of this new position include serving as Graduate Coordinator, serving as acting Chair when needed, reviewing grant proposals and theses, assisting with departmental assessments and annual reports, serving ex officio on the Chair's Advisory Committee and Graduate committee, etc. My contributions included leading interested faculty in developing specifications

<sup>\*</sup>undergraduate co-authors

and evaluating bids for a new greenhouse and a new set of microscopes, developing guidelines for administering new departmental funds for TA support and for summer thesis scholarships, and developing procedures for a new continuous enrollment requirement for graduate students. I also helped organize our first spring picnic to recognize new teaching and thesis awards for graduate students. I stepped down as Associate Chair at the end of the spring term after my father died and I needed to spend time over the summer helping my family.

## Symposia Participation

Dussourd, D.E. 2013. Girdles, acid and spit: Deactivation of host plant defenses by notodontid caterpillars. Entomological Society of America, Austin, Texas.

- Dussourd, D.E. 2011. For love of insect and plants: Serendipitous discoveries from nature. Entomological Society of America, Reno, NV.
- Dussourd, D.E. 2011. Bioprospecting with a caterpillar probe: Using behavior to guide isolation. ASSET Initiative Annual Conference, P3 symposium (Plant powered production), Heber Springs, AR.
- Dussourd, D.E. 2007. Behavioral sabotage of plant defense: Chemical releasers of trenching by insect herbivores. 4<sup>th</sup> Asia-Pacific Conference on Chemical Ecology, Tsukuba, Japan.
- Dussourd, D.E. 2005. Bioprospecting with a caterpillar probe: Using behavior to guide isolation. Entomological Society of America, Fort Lauderdale, FL.
- Dussourd, D.E. 2004. Latex: mode of action, efficacy, and insect response. XXII International Congress of Entomology, Brisbane, Australia.
- Dussourd, D.E. 2002. Bugs and drugs: Chemical stimulants of leaf-trenching by cabbage loopers. Southeastern Branch, Entomological Society of America, Little Rock, AR
- Dussourd, D.E. 1993. Host range of generalist caterpillars: Trenching permits feeding on plants with secretory canals. Lepidopterists' Society. Fort Collins, Colorado.
- Dussourd, D.E. 1988. Evolution of male moth pheromones derived from plant alkaloids: Role of sexual selection. Eastern Branch, Entomological Society of America. Syracuse, NY.
- Dussourd, D.E., Ubik, K., Resch, J.F., Meinwald, J. and T. Eisner. 1984. Egg protection by parental investment of plant alkaloids in Lepidoptera. XVII International Congress of Entomology. Hamburg, Germany.
- Dussourd, D.E. 1984. A specialist strategy: Behavioral modification of host plant quality. Entomological Society of America. San Antonio, TX.
- Dussourd, D.E. 1983. Specialized feeding behaviors of milkweed insects deactivate latex defense. Eastern Branch, Entomological Society of America. Providence, RI.

## Submitted Presentations at Meetings

Hurley, K. and Dussourd, D.E. 2013. Making the cut: Behavioral adaptation by soybean loopers to a novel geranium host. Entomological Society of America, Austin, Texas (2<sup>nd</sup> place in section for graduate student competition).

- Van Valkenburg, M. and Dussourd, D.E. 2013. Histology of ecology: How do caterpillars of *Theroa zethus* (Notodontidae) circumvent host defenses? Entomological Society of America, Austin, Texas (2<sup>nd</sup> place in section for undergraduate student competition).
- Hurley, K. and Dussourd, D.E. 2013. Tricky Trichomes: Chemical Defense in Geranium and Counteradaptation by Soybean Loopers. Arkansas ASSET Initiative Annual Meeting, Little Rock, Arkansas (invited poster).
- Hurley, K. and Dussourd, D.E. Tricky trichomes: Chemical defense in geranium and counteradaptation by soybean loopers.
- 2013. Southern section of the American Society of Plant Biologists, Little Rock, AR.
- 2013. Arkansas Academy of Sciences, Little Rock, AR.
- Hurley, K., Davis, N., and D.E. Dussourd. Do headless males really make better lovers? Sexual cannibalism in Carolina mantids.
- 2012. Entomological Society of America, Knoxville, TN.
- 2012. Joint meeting of SE and SW branches Entomological Society of America, Little Rock, AR.
- Dussourd, D.E. 2011. Novel hostplants require novel behaviors: canal-cutting in a euphorb-feeding caterpillar, *Theroa zethus* (Notodontidae). Entomological Society of America, Reno, NV (poster).
- Ganong, C.N. and D.E. Dussourd. 2010. Distribution and function of girdling by caterpillars of prominent moths (Lepidoptera: Notodontidae). Ecological Society of America, Pittsburgh, PA.
- Dussourd, D.E. 2009. Caterpillars and katydids: Do canal-cutting behaviors facilitate host-range expansion by insect herbivores? Arkansas Academy of Science, Clarkesville, AR.
- Ganong, C.N. and D.E. Dussourd, 2009. Distribution and function of girdling by caterpillars of prominent moths (Lepidoptera: Notodontidae). Arkansas Academy of Science, Clarkesville, AR (poster). The poster won first place in the graduate poster competition.
- Dussourd, D.E. 2008. Do canal-cutting behaviors facilitate host-range expansion by insect herbivores? Entomological Society of America, Reno, NV.
- Ganong, C.N. and D.E. Dussourd, 2008. Distribution and function of girdling by caterpillars of prominent moths (Lepidoptera: Notodontidae). Entomological Society of America, Reno, NV. (poster). The poster won first place in the student competition in an Insect-Plant Ecosytems section.
- Dussourd, D.E. 2004. Bioprospecting with a caterpillar probe: identification of trenching stimulants. XXII International Congress of Entomology, Brisbane, Australia.
- Dussourd, D.E. 2003. Neurotoxic alkaloid triggers leaf-trenching by cabbage loopers, *Trichoplusia ni*. Entomological Society of America, Cincinnati, OH (poster).
- Helmus, M.R. and D.E. Dussourd. 2003. The vein-cutting monarch: a bioassay for vein-cutting stimulants in milkweed latex. Ecological Society of America, Savannah, GA.
- Dussourd, D.E. 2001. Pesticides, drugs, and natural products: Stimulants of leaf-trenching by cabbage loopers. Entomological Society of America, San Diego, CA

- Helmus, M.R. and D.E. Dussourd. 2001. Glues or poisons: Why do monarchs sever milkweed veins? Entomological Society of America, San Diego, CA (poster).
- Sizemore, E. and D.E. Dussourd. Trench or die: why do many soybean loopers fail to trench?
  - 2001. Arkansas Academy of Science, Conway, AR (1st place in undergraduate poster division)
  - 2001. Arkansas Undergraduate Research Conference, Arkadelphia, AR.
  - 2000. Entomological Society of America, Montreal, Canada (poster).
- Dussourd, D.E. and A.M. Hoyle. 1999. Poisoned plusiines: Toxicity of milkweed latex to some generalist caterpillars. Entomological Society of America, Atlanta, GA.
- Dussourd, D.E. 1997. Behavioral sabotage of plant defense: Do vein cuts and trenches reduce insect exposure to exudate? Entomological Society of America, Nashville, TN (poster).
- Dussourd, D.E. Plant exudates trigger leaf-trenching by cabbage loopers, *Trichoplusia ni*.
  - 1997. Ecological Society of America, Albuquerque, NM (poster).
  - 1996. Entomological Society of America, Louisville, KY (poster).
- Dussourd, D.E. Mass entrapment of aphids in lettuce latex.
  - 1992 Arkansas Academy of Science. Conway, AR.
  - 1991 Entomological Society of America. Reno, Nevada.
- Dussourd, D.E. 1991. Behavioral deactivation of plant defenses by insect herbivores. Arkansas Academy of Science. Fayetteville, AR.
- Dussourd, D.E. and R.F. Denno. Adaptations of leaf-feeding insects to defensive canal systems in plants (poster).
  - 1989. Gordon Research Conference on the Chemistry of Plant-Herbivore Interactions. Oxnard, CA.
  - 1989. Entomological Society of America. San Antonio, TX.
- Dussourd, D.E. and R.F. Denno. 1988. Adaptations of leaf-feeding insects to defensive plant canals: Correspondence between behavior and secretory canal architecture. Entomological Society of America. Louisville, KY.
- Dussourd, D.E. and R.F. Denno. 1987. Trenching by generalist noctuids: A behavioral counterploy to mobilized plant defenses. Entomological Society of America. Boston, MA.
- Dussourd, D.E. and S.B. Krasnoff. 1987. Chemical basis of attraction of arctiid moths to plants containing pyrrolizidine alkaloids. Eastern Branch, Entomological Society of America. Atlantic City, NJ.
- Dussourd, D.E., Ubik, K., Harvis, C., Meinwald, J. and T. Eisner. Egg protection by parental investment of plant alkaloids in Lepidoptera (poster).
  - 1986. Gordon Research Conference on the Chemistry of Plant-Herbivore Interactions. Oxnard, CA.

#### Research Seminars

- 2013. University of Central Arkansas, Department of Biology
- 2012. Southwestern Research Station, Portal, Arizona
- 2011. University of Illinois, Urbana-Champaign, Department of Entomology
- 2011. Pennsylvania State University, Department of Entomology
- 2009. Harding University, Department of Biology
- 2006. University of Arkansas, Fayetteville, Department of Entomology
- 2002. University of Arkansas, Little Rock, Department of Applied Science

- 2002. Wake Forest University, Department of Biology
- 2001. Hendrix College, Department of Biology
- 2000. University of Missouri, Columbia, Department of Entomology
- 2000. University of Arkansas, Fayetteville, Department of Entomology
- 2000. University of Central Arkansas, Department of Biology
- 1997. University of Arizona, Tucson, Department of Entomology.
- 1997. Southwest Missouri State University, Department of Biology.
- 1996. Southwest Texas State University, Department of Biology.
- 1993. University of Kansas, Lawrence, Department of Entomology.
- 1993. Colorado State University, Department of Entomology (two seminars).
- 1993. Hendrix College, Department of Biology.
- 1993. University of Arkansas, Little Rock, Department of Biology.
- 1992. University of Arkansas, Fayetteville, Department of Entomology.
- 1992. University of Central Arkansas, Department of Biology.
- 1991. Harding University, Department of Biology.
- 1990. University of Maryland, College Park, Department of Entomology.
- 1990. University of Central Arkansas, Department of Biology.
- 1989. University of Massachusetts, Department of Entomology (two seminars)
- 1989. Maryland Entomological Society.
- 1988. University of Delaware, Department of Entomology and Applied Ecology.
- 1988. Santa Clara University, Department of Biology.
- 1986. Duke University, Department of Zoology (two seminars).
- 1986. Cornell University, Section of Neurobiology and Behavior.
- 1986. Entomological Society of Washington.
- 1985. University of Maryland, College Park, Department of Entomology.
- 1984. Cornell University, Department of Entomology.

## Other Presentations

Keeping students engaged when teaching large class sizes. 2014. Luncheon speaker for UCA Instructional Development Center.

First day, last day, and in between: Thoughts on designing a course. 2013. Luncheon speaker for miniconference on teaching sponsored by the UCA Instructional Development Center.

Substance or fluff: Threaded discussions and Powerpoint in Freshman Biology. 2003. UCA TechFest III: Teaching in a Technological Time.

To know a bug: Explorations in insect behavior. 1996. College of Natural Sciences and Mathematics Faculty Presentation Series, UCA.

Ploy-counterploy: Plant defenses and the hungry herbivore. 1992. Banquet address for the Arkansas Native Plant Society, Monticello, AR.

# Photography Experience

Photographs published in biology, ecology, and behavior textbooks and lab manuals, Science, Ecology, Natural History, American Entomologist (cover photographs), Arthropod-Plant Interactions, Oecologia, Journal of Insect Behavior, Biological Journal of the Linnean Society, Journal of Chemical Ecology, Annals of the Entomological Society of America, Chemoecology, Wings: Essays in Invertebrate Conservation, Current Opinion in Plant Biology, Entomological Society of America Insect Calendar 2006, Log Cabin Democrat, etc.

Photographic Soc. Amer. Silver Medal for best slide, National Insect Photographic Salon 1988

## Supervised MS Theses (most recent)

Hurley, K. 2014. Tricky trichomes: Chemical defense in geranium and counteradaptations by soybean loopers. Thesis funded by Research Assistantship from NSF-funded P3 (Plant-powered production) grant, UCA summer research stipend (\$1,900), and two UCA student research grants (total \$1,927). Oral presentations at the 2013 Entomological Society of America meeting in Austin, Texas (2<sup>nd</sup> place in division), 2013 Southern section of the American Society of Plant Biologists, Little Rock, AR, 2013 Arkansas Academy of Sciences, Little Rock, AR. Poster presentations at the 2013 AR ASSET Initiative Annual Meeting (invited) and 2013 UCA College of Natural Sciences and Mathematics Research Symposium.

Ganong, C. 2009. Distribution and function of girdling by caterpillars of prominent moths (Lepidoptera: Notodontidae). Thesis funded by Arkansas Game and Fish Commission Conservation Scholarships (\$3,000/yr), summer research assistantship (\$2,800), and UCA student research grant. Posters presented at Entomological Society of America meeting in Reno, NV 2008 (1st place award in her division), Arkansas Academy of Science meeting in Clarkesville, AR 2009 (1st place award for graduate posters), and at the UCA College of Natural Sciences and Mathematics Research Symposia in 2007, 2008 and 2009. Carissa is currently a PhD graduate student at U. Georgia.

Oppel, C.B. 2008. Microwave visualization of a plant defense and insect counterploy: Alkaloid distribution in *Lobelia* leaves trenched by a plusiine caterpillar.

Thesis funded by Arkansas Game and Fish Commission Conservation Scholarships (\$3,000/yr), summer research assistantship (\$2,800), Sigma Xi grant (\$1000) and UCA student research grant (\$1,340). Poster presented at UCA College of Natural Sciences and Mathematics Research Symposia in 2007. Craig is currently a biological research technician at the USDA ARS beneficial insects lab in Newark, Delaware.

## Supervised Undergraduate Projects (most significant)

Van Valkenburg, M. 2012-14. Histology of ecology: How do caterpillars of *Theroa zethus* (Notodontidae) deactivate host defenses. Honors thesis. Research funded by SURF (\$4000), NSF P3 grant (\$997), and UCA Student Research Grant (\$685). Poster presentations at the 2013 meeting of the Entomological Society of America (2<sup>nd</sup> place in undergraduate division) and 2013 UCA College of Natural Sciences and Mathematics Research Symposium. Best 2014 undergraduate thesis award from UCA Biology Department.

Hurley, K. and N. Davis. 2009-2012. Mate choice in mantids: Does sexual cannibalism allow females to avoid inbreeding. Research funded by UCA (\$1330). Oral presentation at the joint SE/SW branch meetings of the Entomological Society of America, Little Rock, AR March 5, 2012 (1st place undergraduate, \$100 prize). Posters presented at the 2012 Entomological Society of America in Knoxville, TN, 2010 Arkansas Academy of Science, Little Rock, AR, and the 2010 and 2011 UCA College of Natural Sciences and Mathematics Research Symposium.

Pigue, K. 2003-04. Proximate cue or ultimate cause: Does myristicin trigger trenching? Research funded by UCA (\$175). Poster presented at the UCA College of Natural Sciences and Mathematics Research Symposium.

Helmus, M. 2000-02. Glues or poisons: Why do monarchs sever milkweed veins? UCA Honors Thesis funded by Sigma Xi (\$600) and UCA (\$1,115). Poster presented at the annual Entomological Society of America meeting, San Diego, CA December 2001. Matt received the Outstanding UCA Student Award spring 2002.

Sizemore, E. 2000-01. Trench or die: Why do so many soybean loopers fail to trench? Research funded by SILO (\$3,900), UCA research grant (\$700), and UCA travel grant (~\$235). Poster presented at the annual Entomological Society of America meeting, Montreal, Canada 12/5/2000 and at the Arkansas Academy of Science 4/13/2000 where she won the first place award in the undergraduate poster competition. Oral presentation at the Arkansas Undergraduate Research Conference 4/21/2001, Arkadelphia, AR.

Tune, G. R. 1999. A comparative study of trenching behavior in plusiine caterpillars. UCA Honors thesis funded by Sigma Xi (\$600) and UCA (\$761 grant + \$2000 summer stipend).

Hoyle, A. 1995. Deterrence and toxicity of some plant latices to cabbage loopers, *Trichoplusia ni*. Research presented at the Alpha Chi National Convention, Atlanta, GA.

### **Professional Service**

Grant proposals reviewed for NSF and USDA.

Manuscripts reviewed for PNAS, PLOS ONE, Ecology, Ecological Monographs, American Naturalist, Journal of Chemical Ecology, Animal Behaviour, Proceedings of the Royal Society B, Journal of the Royal Society Interface, Arthropod-Plant Interactions, Annals of the Entomological Society of America, Chemoecology, Journal of Insect Behavior, Animal Cognition, Ecological Entomology, Plant Cell and Environment, Phytochemistry, Planta, Biotropica, Biological Journal of the Linnean Society, New Phytologist, Journal of Insect Science, Entomologia Experimentalis et Applicata, Environmental Entomology, Insect Biochemistry and Molecular Biology, Journal of the Kansas Entomological Society, Journal of the Lepidopterists' Society, Archives of Insect Biochemistry and Physiology, Northeastern Naturalist, Great Lakes Entomologist, Neotropical Entomology, South African Journal of Science

### Assistance with Nature Documentaries

'Beetlemania' - produced by Green Umbrella and shown on National Geographic Explorer for the first time on June 9, 1996. The program includes a segment filmed at the University of Central Arkansas (September 1995) on vein-cutting and trenching behavior in beetles.

'Victims of Venom'- produced by Paneikon and broadcast on Nature WNET for the first time on March 31, 1996. The program includes a segment filmed at the University of Central Arkansas (June 1993) and the University of Maryland (1988) on insect adaptations for feeding on plants that release exudates.

'Incontri Avvelenati' (Poison Encounter) - produced by Paneikon for series Quark shown on Italian TV. The program includes a segment on vein-cutting and trenching filmed at the University of Maryland (1988).