

CURRICULUM VITAE

Kenneth F. Haynes

Address: Department of Entomology
S-225 Agricultural Science Center
University of Kentucky
Lexington, Kentucky 40546-0091
USA

Phone: (859) 257-1618
FAX: (859) 323-1120
E-mail: khaynes@uky.edu
president@chemecol.org

Current Office: President, International Society of Chemical Ecology 2015-2016.

Education:

University of California, Davis, Ph. D. in Entomology, 1982

State University of New York at Binghamton, B.S. in Biological Science, 1976

Employment:

Bobby C. Pass Research Professor, Department of Entomology, University of Kentucky, Lexington, Kentucky, USA

Professor of Entomology, Department of Entomology, University of Kentucky, Lexington (July 1, 1995 - Present)

Associate Professor of Entomology, Department of Entomology, University of Kentucky, Lexington (July 1, 1991 - June 30, 1995)

Assistant Professor of Entomology, Department of Entomology, University of Kentucky, Lexington (September 1, 1986 - June 30, 1991)

Postdoctoral Research Associate, Department of Entomology, University of California, Riverside (August 1982 - August 1986)

Awards and Honors:

Phi Beta Kappa (Elected 1976)

University of California Regents Fellowship (1977-1978)

Distinguished Scholar Research Award (1977)

Earl C. Anthony Fellowship (1978 - Declined to accept NSF award)

National Science Foundation Graduate Fellowship (1978-1981)

Teaching Award for Outstanding Graduate Student (U. C. Davis, 1982)

Thomas Poe Cooper Research Award, College of Agriculture (1993)

Wethington Award for Grantsmanship, University of Kentucky (2009-2010)

High Impact Research/Extension Program Award (2011 with M Potter and R. Palli)
Fellow, American Association for the Advancement of Science (2011)
C. V. Riley Award, North Central Branch, Entomological Society of America for
“outstanding contributions to the science of entomology” (2012)

Publications

Refereed Journal Articles

1. Pollak EI, Becker LR, Haynes K. 1978. Sensory control of mating in the blue gourami, *Trichogaster trichopterus* (Pisces, Belontiidae). *Behavioral Biology* 22(1):92-103.
2. Haynes KF, Birch MC, Klun JA. 1981. Sex pheromone offers promise for control of the artichoke plume moth. *California Agriculture* 35(1-2):13-14.
3. Klun JA, Haynes KF, Bierl-Leonhardt BA, Birch MC, Plimmer JR. 1981. Sex pheromone of the female artichoke plume moth, *Platyptilia carduidactyla*. *Environmental Entomology* 10(5):763-765.
4. Haynes KF, Gaston LK, Pope MM, Baker TC. 1983. Rate and periodicity of pheromone release from individual female artichoke plume moths, *Platyptilia carduidactyla* (Lepidoptera: Pterophoridae). *Environmental Entomology* 12(5):1597-1600.
5. Haynes KF, Birch MC. 1984a. Mate locating and courtship behaviors of the artichoke plume moth, *Platyptilia carduidactyla* (Lepidoptera: Pterophoridae). *Environmental Entomology* 13(2):399-408.
6. Haynes KF, Birch MC. 1984b. The periodicity of pheromone release and male responsiveness in the artichoke plume moth, *Platyptilia carduidactyla*. *Physiological Entomology* 9(3):287-295.
7. Haynes KF, Gaston LK, Pope MM, Baker TC. 1984. Potential for evolution of resistance to pheromones: interindividual and interpopulational variation in chemical communication system of pink bollworm moth. *Journal of Chemical Ecology* 10(11):1551-1565.
8. Baker TC, Willis MA, Haynes KF, Phelan PL. 1985. A pulsed cloud of sex pheromone elicits upwind flight in male moths. *Physiological Entomology* 10(3):257-265.
9. Haynes KF, Baker TC. 1985. Sublethal effects of permethrin on the chemical communication system of the pink bollworm moth. *Archives of Insect Biochemistry and Physiology* 2(3):283-293.
10. Haynes KF, Birch MC. 1986. Temporal reproductive isolation between two species of plume moths. *Annals of the Entomological Society of America* 79(1):210-215.

11. Haynes KF, Li WG, Baker TC. 1986a. Control of pink bollworm moth (Lepidoptera: Gelechiidae) with insecticides and pheromones (attracticide): Lethal and sublethal effects. *Journal of Economic Entomology* 79(6):1466-1471.
12. Haynes KF, Miller TA, Staten RT, Li WG, Baker TC. 1986b. Monitoring insecticide resistance with insect pheromones. *Experientia* 42(11-12):1293-1295.
13. Haynes KF, Parrella MP, Miller TA, Trumble J. 1986c. Monitoring insecticide resistance with yellow sticky cards *California Agriculture* 40(11):11-12.
14. Li W, Haynes KF, Baker TC. 1986. Sensory and behavioral effects of gossyplure alcohol on the sex pheromone response of male pink bollworm moths, *Pectinophora gossypiella*. *Journal of Chemical Ecology* 12(1):25-38.
15. Baker TC, Haynes KF. 1987. Manuvers used by flying male oriental fruit moths to relocate a sex pheromone plume in an experimentally shifted wind field. *Physiological Entomology* 12(3):263-279.
16. Haynes KF. 1987. Identification of the sex pheromone of the calendula plume moth, *Platyptilia williamsii*. *Journal of Chemical Ecology* 13(4):907-916.
17. Haynes KF, Miller TA, Staten RT, Li WG, Baker TC. 1987. Pheromone trap for monitoring insecticide resistance in the pink bollworm moth, *Pectinophora gossypiella* (Lepidoptera: Gelechiidae): New tool for resistance management. *Environmental Entomology* 16(1):84-89.
18. Haynes KF, Baker TC. 1988. Potential for evolution of resistance to pheromones: World wide and local variation in the chemical communication system of the pink bollworm moth, *Pectinophora gossypiella*. *Journal of Chemical Ecology* 14(7):1547-1560.
19. Baker TC, Haynes KF. 1989. Field and laboratory electroantennographic measurements of pheromone plume structure. *Physiological Entomology* 14(1):1-12.
20. Haynes KF, Baker TC. 1989. An analysis of anemotactic flight in female moths stimulated by host odour and comparison to the males' response to sex pheromone. *Physiological Entomology* 14(3):279-289.
21. Campero DM, Haynes KF. 1990. Effects of methoprene on chemical communication, courtship and oviposition in the cabbage looper moth (Lepidoptera: Noctuidae). *Journal of Economic Entomology* 83(6):2263-2268.
22. Clark JD, Haynes KF. 1990. Sex attractant for the bluegrass webworm (Lepidoptera: Pyralidae). *Journal of Economic Entomology* 83(3):856-859.
23. Haynes KF. 1990. Identification of the sex pheromone of the bristly cutworm, *Lacinipolia renigera* (Stephens). *Journal of Chemical Ecology* 16(9):2615-2621.

24. Haynes KF, Hunt RE. 1990a. Interpopulational variation in the six component pheromone blend of the cabbage looper moth, *Trichoplusia ni*. *Journal of Chemical Ecology* 16(2):509-519.
25. Haynes KF, Hunt RE. 1990b. A mutation in the pheromonal communication system of the cabbage looper moth, *Trichoplusia ni*. *Journal of Chemical Ecology* 16(4):1249-1257.
26. Hunt RE, Haynes KF. 1990. Periodicity in the quantity and blend ratios of pheromone components emitted by mutant and normal cabbage looper moths. *Journal of Insect Physiology* 36(10):769-774.
27. Hunt RE, Zhao BG, Haynes KF. 1990. Genetic aspects of interpopulational differences in the pheromone blend of the cabbage looper moth, *Trichoplusia ni*. *Journal of Chemical Ecology* 16(10):2935-2946.
28. Haynes KF, Zhao JZ, Latif A. 1991. Identification of floral compounds from *Abelia grandiflora* that stimulate upwind flight in cabbage looper moths, *Trichoplusia ni*. *Journal of Chemical Ecology* 17(3):637-646.
29. McLellan KAM, Nordin GL, Haynes KF. 1991. Chemical communication and reproductive isolation in two types of the fall webworm (Lepidoptera: Arctiidae). *Annals of the Entomological Society of America* 84(1):118-123.
30. Clark DC, Haynes KF. 1992a. Sublethal effects of cypermethrin on chemical communication, courtship and oviposition in the cabbage looper moth (Lepidoptera: Noctuidae). *Journal of Economic Entomology* 85(5):1771-1778.
31. Clark DC, Haynes KF. 1992b. Sublethal effects of chlordimeform on chemical communication and other reproductive behaviors in the cabbage looper moth (Lepidoptera: Noctuidae). *Archives of Insect Biochemistry and Physiology* 19(2):105-117.
32. Elagamy FM, Haynes KF. 1992. Susceptibility of the pea aphid to a predator and an insecticide in the presence of synthetic alarm pheromone. *Journal of Economic Entomology* 85(3):794-798.
33. Haynes KF, Potter DA, Collins JT. 1992. Attraction of male beetles to grubs: Evidence for the evolution of a sex pheromone from larval odor. *Journal of Chemical Ecology* 18(7):1117-1124.
34. Hunt RE, Fox JP, Haynes KF. 1992. Behavioral response of *Graminella nigrifrons* to experimentally manipulated vibrational signals. *Journal of Insect Behavior* 5(1):1-13.

35. Liu YB, Haynes KF. 1992. Filamentous nature of pheromone plumes protects integrity of signal from background noise in cabbage looper moths, *Trichoplusia ni*. *Journal of Chemical Ecology* 18(3):299-307.
36. Todd JL, Haynes KF, Baker TC. 1992. Antennal neurones specific for redundant pheromone components in normal and mutant *Trichoplusia ni* males. *Physiological Entomology* 17(2):183-192.
37. Hunt RE, Parr JC, Haynes KF. 1993. Influence of leafhopper (Homoptera: Cicadellidae) gender and female mating status on plant disease dynamics within a simple habitat. *Environmental Entomology* 22(1):109-115.
38. Liu YB, Haynes KF. 1993a. Impact of (Z) 7 dodecenol and turbulence on pheromone mediated flight manoeuvres of male *Trichoplusia ni*. *Physiological Entomology* 18(4):363-371.
39. Liu YB, Haynes KF. 1993b. Pheromone mediated responses of male cabbage looper moths, *Trichoplusia ni*, following various exposures to sex pheromone or (Z) 7 dodecenol. *Journal of Chemical Ecology* 19(3):503-515.
40. Potter DA, Haynes KF. 1993. Field testing pheromone traps for predicting masked chafer (Coleoptera: Scarabaeidae) grub density in golf course turf and home lawns. *Journal of Entomological Science* 28(2):205-212.
41. Jurenka RA, Haynes KF, Adlof RO, Bengtsson M, Roelofs WL. 1994. Sex pheromone component ratio in the cabbage looper moth altered by a mutation affecting the fatty acid chain shortening reactions in the pheromone biosynthetic pathway. *Insect Biochemistry and Molecular Biology* 24(4):373-381.
42. Liu YB, Haynes KF. 1994a. Temporal and temperature-induced changes in emission rates and blend ratios of sex pheromone components in *Trichoplusia ni*. *Journal of Insect Physiology* 40(4):341-346.
43. Liu YB, Haynes KF. 1994b. Evolution of behavioral responses to sex pheromone in mutant laboratory colonies of *Trichoplusia ni*. *Journal of Chemical Ecology* 20(2):231-238.
44. Haynes KF, Potter DA. 1995. Chemically mediated sexual attraction of male *Cyclocephala lurida* (Coleoptera:Scarabaeidae) and other Scarabaeid beetles to immature stages. *Environmental Entomology* 24(5):1302-1306.
45. Moore AJ, Reagan NL, Haynes KF. 1995. Conditional signaling strategies: Effects of ontogeny, social experience and social status on the pheromonal signal of male cockroaches. *Animal Behaviour* 50:191-202.

46. Baker TC, Haynes KF. 1996. Pheromone-mediated optomotor anemotaxis and altitude control exhibited by male oriental fruit moths in the field. *Physiological Entomology* 21(1):20-32.
47. Haynes KF, Yeargan KV, Millar JG, Chastain BB. 1996. Identification of sex pheromone of *Tetanolita mynesalis* (Lepidoptera: Noctuidae), a prey species of bolas spider, *Mastophora hutchinsoni*. *Journal of Chemical Ecology* 22(1):75-89.
48. Moore PJ, ReaganWallin NL, Haynes KF, Moore AJ. 1997. Odour conveys status on cockroaches. *Nature* 389(6646):25-25.
49. Zhao JZ, Haynes KF. 1997. Does PBAN play an alternative role of controlling pheromone emission in the cabbage looper moth, *Trichoplusia ni* (Hubner) (Lepidoptera: Noctuidae)? *Journal of Insect Physiology* 43(7):695-700.
50. Zhu JW, Chastain BB, Spohn BG, Haynes KF. 1997. Assortative mating in two pheromone strains of the cabbage looper moth, *Trichoplusia ni*. *Journal of Insect Behavior* 10(6):805-817.
51. Gemeno C, Anton S, Zhu JW, Haynes KF. 1998. Morphology of the reproductive system and antennal lobes of gynandromorphic and normal black cutworm moths, *Agrotis ipsilon* (Hufnagel) (Lepidoptera : Noctuidae). *International Journal of Insect Morphology & Embryology* 27(3):185-191.
52. Gemeno C, Haynes KF. 1998. Chemical and behavioral evidence for a third pheromone component in a North American population of the black cutworm moth, *Agrotis ipsilon*. *Journal of Chemical Ecology* 24(6):999-1011.
53. Bauernfeind RJ, Haynes KF, Potter DA. 1999. Responses of three *Cyclocephala* (Coleoptera : Scarabaeidae) species to hexane extracts of *Cyclocephala lurida* sex pheromone. *Journal of the Kansas Entomological Society* 72(2):246-247.
54. Haynes KF, Yeargan KV. 1999. Exploitation of intraspecific communication systems: Illicit signalers and receivers. *Annals of the Entomological Society of America* 92(6):960-970.
55. Gemeno C, Haynes KF. 2000. Periodical and age-related variation in chemical communication system of black cutworm moth, *Agrotis ipsilon*. *Journal of Chemical Ecology* 26(2):329-342.
56. Gemeno C, Lutfallah AF, Haynes KF. 2000a. Pheromone blend variation and cross-attraction among populations of the black cutworm moth (Lepidoptera : Noctuidae). *Annals of the Entomological Society of America* 93(6):1322-1328.
57. Gemeno C, Yeargan KV, Haynes KF. 2000b. Aggressive chemical mimicry by the bolas spider *Mastophora hutchinsoni*: Identification and quantification of a major prey's sex

- pheromone components in the spider's volatile emissions. *Journal of Chemical Ecology* 26(5):1235-1243.
58. Evenden ML, Haynes KF. 2001. Potential for the evolution of resistance to pheromone-based mating disruption tested using two pheromone strains of the cabbage looper, *Trichoplusia ni*. *Entomologia Experimentalis et Applicata* 100(1):131-134.
 59. Gemeno C, Haynes KF. 2001. Impact of photoperiod on the sexual behavior of the black cutworm moth (Lepidoptera : Noctuidae). *Environmental Entomology* 30(2):189-195.
 60. Gemeno C, Moore AJ, Preziosi RF, Haynes KF. 2001. Quantitative genetics of signal evolution: A comparison of the pheromonal signal in two populations of the cabbage looper, *Trichoplusia ni*. *Behavior Genetics* 31(2):157-165.
 61. Haynes KF, Yeargan KV, Gemeno C. 2001. Detection of prey by a spider that aggressively mimics pheromone blends. *Journal of Insect Behavior* 14(4):535-544.
 62. Evenden ML, Spohn BG, Moore AJ, Preziosi RF, Haynes KF. 2002. Inheritance and evolution of male response to sex pheromone in *Trichoplusia ni* (Lepidoptera : Noctuidae). *Chemoecology* 12(1):53-59.
 63. Haynes KF, Gemeno C, Yeargan KV, Millar JG, Johnson KM. 2002. Aggressive chemical mimicry of moth pheromones by a bolas spider: how does this specialist predator attract more than one species of prey? *Chemoecology* 12(2):99-105.
 64. Moore AJ, Haynes KF, Preziosi RF, Moore PJ. 2002. The evolution of interacting phenotypes: Genetics and evolution of social dominance. *American Naturalist* 160:S186-S197.
 65. Spohn BC, Zhu JW, Chastain BB, Haynes KF. 2003. Influence of mating disruptants on the mating success of two strains of cabbage loopers, *Trichoplusia ni* (Hubner) (Lepidoptera : Noctuidae). *Environmental Entomology* 32(4):736-741.
 66. Rucker CN, Haynes KF. 2004. Impairment of optomotor anemotaxis in yellow-eyed mutant cabbage looper moths, *Trichoplusia ni*. *Journal of Insect Behavior* 17(4):437-442.
 67. Zhu JW, Haynes KF. 2004. Sex pheromone components of the bronzed cutworm, *Nephelodes minians*, a prey species of a bolas spider, *Mastophora hutchinsoni*. *Journal of Chemical Ecology* 30(10):2047-2056.
 68. Kolliker M, Chuckalovcak JP, Haynes KF, Brodie ED. 2006. Maternal food provisioning in relation to condition-dependent offspring odours in burrower bugs (*Sehirus cinctus*). *Proceedings of the Royal Society B-Biological Sciences* 273(1593):1523-1528.

69. Haynes KF, McLaughlin J, Stamper S, Rucker C, Webster FX, Czokajlo D, Kirsch P. 2007. Pheromone trap for the eastern tent caterpillar moth. *Environmental Entomology* 36(5):1199-1205.
70. Romero A, Potter MF, Potter DA, Haynes KF. 2007b. Insecticide resistance in the bed bug: A factor in the pest's sudden resurgence? *Journal of Medical Entomology* 44(2):175-178.
71. Hemmann DJ, Allison JD, Haynes KF. 2008. Trade-off between sensitivity and specificity in the cabbage looper moth response to sex pheromone. *Journal of Chemical Ecology* 34(11):1476-1486.
72. Seagraves BL, Haynes KF, Redmond CT, Tittle S, Potter DA. 2008. Seasonal biology and management of the maple shoot borer, *Proteoteras aesculana* (Lepidoptera : Tortricidae), in production nurseries. *Pest Management Science* 64(10):1040-1049.
73. Domingue MJ, Haynes KF, Todd JL, Baker TC. 2009. Altered olfactory receptor neuron responsiveness is correlated with a shift in behavioral response in an evolved colony of the cabbage looper moth, *Trichoplusia ni*. *Journal of Chemical Ecology* 35(4):405-415.
74. Mas F, Haynes KF, Kolliker M. 2009. A chemical signal of offspring quality affects maternal care in a social insect. *Proceedings of the Royal Society B-Biological Sciences* 276(1668):2847-2853.
75. Romero A, Potter MF, Haynes KF. 2009a. Evaluation of piperonyl butoxide as a deltamethrin synergist for pyrethroid-resistant bed bugs. *Journal of Economic Entomology* 102(6):2310-2315.
76. Romero A, Potter MF, Haynes KF. 2009b. Behavioral responses of the bed bug to insecticide residues. *Journal of Medical Entomology* 46(1):51-57.
77. Sloggett JJ, Haynes KF, Obrycki JJ. 2009a. Hidden costs to an invasive intraguild predator from chemically defended native prey. *Oikos* 118(9):1396-1404.
78. Sloggett JJ, Obrycki JJ, Haynes KF. 2009b. Identification and quantification of predation: novel use of gas chromatography-mass spectrometric analysis of prey alkaloid markers. *Functional Ecology* 23(2):416-426.
79. Kajita Y, Obrycki JJ, Sloggett JJ, Haynes KF. 2010. Intraspecific alkaloid variation in ladybird eggs and its effects on con- and hetero-specific intraguild predators. *Oecologia* 163(2):313-322.
80. Moser SE, Haynes KF, Obrycki JJ. 2010. Behavioral response to larval tracks and the influence of tracks on intraguild scavenging by coccinellid larvae. *Journal of Insect Behavior* 23(1):45-58.

81. Romero A, Potter MF, Haynes KF. 2010a. Circadian rhythm of spontaneous locomotor activity in the bed bug, *Cimex lectularius* L. *Journal of Insect Physiology* 56(11):1516-1522.
82. Romero A, Potter MF, Haynes KF. 2010b. Evaluation of chlorfenapyr for control of the bed bug, *Cimex lectularius* L. *Pest Management Science* 66(11):1243-1248.
83. Schwartzberg EG, Haynes KF, Johnson DW, Brown GC. 2010. Wax structures of the ladybird beetle *Scymnus louisianae* attenuate aggression from aphid-tending ants. *Environmental Entomology* 39(4):1309-1314.
84. Zhu F, Wigginton J, Romero A, Moore A, Ferguson K, Palli R, Potter MF, Haynes KF, Palli SR. 2010. Widespread distribution of knockdown resistance mutations in the bed bug, *Cimex lectularius* (Hemiptera: Cimicidae), populations in the United States. *Archives of Insect Biochemistry and Physiology* 73(4):245-257.
85. Zhu F, Sams S, Moural T, Haynes KF, Potter MF, Palli SR. 2012. RNA interference of NADPH-Cytochrome P450 reductase results in reduced insecticide resistance in the bed bug, *Cimex lectularius*. *Plos One* 7(2).
86. Goodman MH, Potter MF, Haynes KF. 2013. Effects of juvenile hormone analog formulations on development and reproduction in the bed bug *Cimex lectularius* (Hemiptera: Cimicidae). *Pest Management Science* 69(2):240-244.
87. Welch KD, Haynes KF, Harwood JD. 2013. Microhabitat evaluation and utilization by a foraging predator. *Animal Behaviour* 85(2):419-425.
88. Zhu F, Gujar H, Gordon JR, Haynes KF, Potter MF, and Palli SR. 2013. Bed bugs evolved unique adaptive strategy to resist pyrethroid insecticides. *Scientific Reports* 3: srep01456.
89. Sun, Q, Haynes K. F., and Zhou X. G.. 2013. Differential undertaking response of a lower termite to congeneric and conspecific corpses. *Scientific Reports* 3: srep01650.
90. Kajita, Y, Obrycki, JJ, Sloggett JJ, Evans EW, Haynes, KF. 2014. Do defensive chemicals facilitate intraguild predation and influence invasion success in ladybird beetles? *Journal of Chemical Ecology* 40: 1212-1219.
91. Liu F, Haynes KF, Appel AG, Liu N. 2014. Antennal olfactory sensilla responses to insect chemical repellents in the common bed bug, *Cimex lectularius*. *Journal of Chemical Ecology* 40: 522-533.
92. Gordon JR, Goodman MH, Potter MF, Haynes KF. 2014. Population variation in and selection for resistance to pyrethroid-neonicotinoid insecticides in the bed bug. *Scientific Reports* 4, srep03836.

93. Gordon JR, Potter MF, Haynes KF. 2015. Insecticide resistance in the bed bug comes with a cost. *Scientific Reports* 5, srep10807.

Books

1. Birch MC, Haynes KF. 1982. *Insect Pheromones*. London: Edward Arnold. 60 p.
2. Millar JG, Haynes KF. 1998. *Methods in Chemical Ecology*. Volume 1. Chemical Methods. New York: Kluwer Academic.
3. Haynes KF, Millar JG. 1998. *Methods in Chemical Ecology*. Volume 2. Bioassay Methods. New York: Kluwer Academic.

Book Chapters and Review Articles

1. Haynes KF, Birch MC. 1985. The role of other pheromones, allomones and kairomones in the behavioral responses of insects. In: Kerkut GA, Gilbert LI, editors. *Comprehensive Insect Physiology, Biochemistry and Pharmacology*. Volume 9. Behaviour. Oxford: Pergamon Pres. p 225-255.
2. Haynes KF. 1988. Sublethal effects of insecticides on the behavioral responses of insects. *Annual Review of Entomology* 33:149-168.
3. Haynes KF. 1997. Genetics of pheromone communication in the cabbage looper moth, *Trichoplusia ni*. In: Carde RT, Minks AK, editors. *Insect pheromone research: new directions*. p 525-534.
4. Potter DA, Williamson RC, Haynes KF, Powell AJ. 2000. Cultural control, risk assessment, and environmentally responsible management of scarab grubs and cutworms in turfgrass. In: Clark JM, Kenna MP, editors. *Fate and Management of Turfgrass Chemicals*. p 383-396.
5. Cardé RT, Haynes KF. 2004. Structure of pheromone communication in moths. In: Cardé RT, Millar JG, editors. *Advances in Insect Chemical Ecology*. Cambridge: Cambridge University. p 283-332.
6. Haynes KF. 2004. Chemical mimicry. In: Hardege J, editor. *Chemical Ecology: EOLSS, UNESCO*.
7. Sloggett JJ, Haynes KF, Obrycki JJ, Davis AJ. 2010b. *Harmonia axyridis* as a model for predator adaptation to chemically defended prey. In: Roy HE, Babendreier D, editors. *Benefits and Risks of Exotic Biological Control Agents: IOBC/wprs*.
8. Haynes KF, Potter MF. 2012. Recent progress in bed bug management. In: Ishaaya I, Palli R, Horowitz AR, editors. *Advanced Technologies for Managing Insect Pests*. Dordrecht:

Springer. p 269-278.

9. Haynes KF. 2012. Sleeping with the Enemy. *Scientific American* 306(2):50-55.

Other Publications

1. Haynes KF. 2002. Review: Signalers and receivers: mechanisms and evolution of arthropod communication. *Quarterly Review of Biology* 77:483.
2. Potter MF, Romero A, Haynes KF, Hardebeck E. 2007. Killing them softly: battling bed bugs in sensitive places. *Pest Control Technology* 35(1):24...32-24...32.
3. Romero A, M. F. Potter; D. Potter, K. F. Haynes. 2007. Resistance to pyrethroids in field populations of the bed bug *Cimex lectularius*. *Resistant Pest Management Newsletter* 16(2):29.
4. Romero A, Potter MF, Haynes KF. 2007a. Insecticide-resistant bed bugs: implications for the industry. *Pest Control Technology* 35(7):42-143.
5. Potter MF, Haynes KF, Romero A, Hardebeck E, Wickemeyer W. 2008a. Is there a new ANSWER? *Pest Control Technology* 36(6):118-124.
6. Potter MF, Romero A, Haynes KF. The situation with bed bugs in the USA. In: Robinson WR, Bajomi D, editors; 2008b; Budapest. OOK Press. p 401-406.
7. Potter MF, Romero A, Haynes KF, Jarzynka T. 2008c. Bed bugs, heat and hotel rooms. *Pest Control Technology* 36(10):106...121-106...121.
8. Romero A, Potter MF, Haynes KF. 2009c. Are dusts the magic bed bug bullet? *Pest Management Professional* 77(5):22,23,26,28,30.
9. Haynes KF, Potter MF, Hassell R, Potter MF. 2008. The secret life of bed bugs. *Pest World*(March/April):4-8.
10. Potter MF, Haynes KF, Romero A. 2009. Battling bed bugs in the USA. *SPWorld* December.
11. Potter MF, Haynes KF, Connelly K, Deutsch M, Hardebeck E, Partin D, Harrison R. 2010. The sensitivity spectrum: human reactions to bed bug bites. *Pest Control Technology* 38(2):70-100.
12. Potter MF, Haynes KF, Goodman M, Stamper S, Sams S. 2010. Bed bugs: a blast from the past. *Pest Management Professional* 78(3):46-52.

13. Potter MF, Haynes KF, Rosenberg B, Henriksen M. 2011a. Bed bugs without borders. *Pest Control Technology* 39(10):40-44.
14. Potter MF, Haynes KF, Rosenberg B, Henriksen M. 2011b. Bed bugs without borders: Defining the global resurgence. *Pest World* November/December:4-15.
15. Goodman MH, Potter MF, Haynes KF. 2012. Shedding light on IGRs and bed bugs. *Pest Control Technology* 40(8):38...46-38...46.
16. Potter MF, Haynes KF, Gordon JR, Washburn L, Washburn M, Hardin T. 2014. Silica gel: a better bed bug desiccant. *Pest Control Technology* 42: 76...84-76...84.
17. Potter MF, Haynes KF, Christensen C, Neary TJ, Turner C, Washburn L, and Washburn M. 2013. Where do bed bugs stand when the dust settles? *Pest Control Technology* 41 (12): 72-74,76-78, 80
18. Potter MF, Haynes KF, Gordon JR, Hardebeck E, Wickemeyer W. 2012. Dual-action bed bug killers. *Pest Control Technology* 40: 62...76-62...76.
19. Potter MF, Haynes KF, Gordon J, Hardebeck E, Arnold E. 2013. Holy cow... bat bugs and bird bugs! *Pest Control Technology* 41: 72...77-72...77.
20. Gordon JR, Goodman MH, Potter MF, Haynes KF. 2014. Trouble brewing for insecticides? *Pest Control Technology* 42: 72...80-72...80.
21. Potter MF, Haynes KF, Fredericks J. 2015. Bed bugs across America: the 2015 bugs without borders survey. *PestWorld*. November/December: 5-14.
22. Crawley SE, Potter MF, and Haynes KF. 2015. Think like a bed bug. *Pest Control Technology* 43: 96,99, 100, 102,107-108, 141.

Patents, Patent Applications

- Liu YB, Haynes, KF. 1994. Automated adjustable interval insect trap. Patent number 5,325,625.
- Wu TT, Haynes K, Hope J. 2011. Identification of insect attractant, arresting and or aggregation compounds and methods thereof. US2011/0293553 A1.
- Loudon C, Corn R, Szyndler M, Haynes K, Potter MF. 2015. Microfabricated surfaces for the physical capture of insects US 20150013213 A1.
- Liu YB, Haynes KF. 2014. Method for bed bug control. USDA and University of Kentucky Research Foundation, Assignees. U.S. Patent Application Serial No. 14/309,045.

Invited Presentations: Over 94 invited presentations in 24 states and 8 countries

Professional Status and Activities:

President, International Society of Chemical Ecology, 2015-2016.

President-Elect, International Society of Chemical Ecology, 2014-2015.

Treasurer, International Society of Chemical Ecology, 2005-2011.

Counselor, International Society of Chemical Ecology, 2003-2005.

Scientific Committee for Asian-Pacific Association of Chemical Ecology, 2015

Reviewer for *The American Naturalist*, *Animal Behaviour*, ***Annals of the Entomological Society of America***, *Behavioral Ecology and Sociobiology*, *The Biological Bulletin*, *The Biological Journal of the Linnean Society*, *BMC Biology*, *The Canadian Entomologist*, *The Canadian Journal of Zoology*, *Chemoecology*, *Ecology Letters*, *Entomologia Experimentalis et Applicata*, ***Environmental Entomology***, *Evolution*, *Florida Entomologist*, *Journal of Agricultural Entomology*, *Journal of Asia-Pacific Entomology*, ***Journal of Chemical Ecology***, *Journal of Comparative Neurology*, *Journal of Comparative Physiology A*, ***Journal of Economic Entomology***, *Journal of Experimental Biology*; ***Journal of Insect Behavior***, ***Journal of Insect Physiology***, ***Journal of Medical Entomology***, *Journal of Theoretical Biology*, *Naturwissenschaften*, *Oecologia*, *Pest Management Science*, *Plant Physiology*, *Proceedings of the National Academy of Sciences*, **Bold indicates many reviews**

Editorial Board, *Annals of the Entomological Society of America*, 1992-1996.

Subject Editor, *Environmental Entomology*, 2003-2008

Professional Societies:

International Society of Chemical Ecology
American Association for the Advancement of Science
Entomological Society of America
Phi Beta Kappa
Gamma Sigma Delta

Teaching:

Insect Biology (ENT 110), Spring 1996, Fall 1997, Spring 2000, Fall 2000, 2001 Fall 2003, Fall 2004, Fall 2007.

Agricultural Pest and Disease Management (GEN 103), Fall 1987. Spring 1989-1994.
College of Agriculture, University of Kentucky.

Insect Behavior (ENT/BIO 568), 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015. Department of Entomology, University of Kentucky. The enrollment in this course consists mostly of Entomology graduate students and Biology undergraduates.

Entomology Graduate Seminar (ENT 770), Fall 1988. Spring and Fall 1989, Fall 1993, Fall 2000, Fall 2008, Fall 2012, Fall 2014