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### Education

1998 PhD Entomology - University of Aberdeen.

### Research Interests and Specialties

Forest Entomology (Plant-Insect Interactions)  
Behavior and Chemical Ecology of Invasive Pests  
Electrophysiology (GC-EAD and Retinogram)  
Host Volatile / Pheromone Identification & Lure Development

### Publications

**Crook, D. J.** and A. J. Mordue. (1999). Olfactory responses and sensilla morphology of the blackcurrant leaf midge *Dasineura tetensi*. *Entomologica Experimentalis et Applicata* 91 (1) 37-50.

Cross, J. V. and **D. J. Crook**. (1999). Predicting spring emergence of blackcurrant leaf midge (*Dasineura tetensi*) from air temperatures. *Entomologica Experimentalis et Applicata*. 91: 421-430.

**Crook D. J.**, J. V. Cross, A. N. E. Birch, R. M. Brennan and A. J. Mordue (Luntz). (2001). Oviposition and larval survival of *Dasineura tetensi* on four blackcurrant *Ribes* cultivars in the UK. *Entomologica Experimentalis et Applicata*. 101: 183-190.

Cross, J. V., M. A. Easterbrook, A. M. Crook, **D. J. Crook**, P. J. Innocenzi, C. N. Jay and M. G. Solomon. (2001). Review: Biocontrol of pests of strawberry in northern and central Europe. *Biocontrol Science & Technology*. Vol 11. Issue 1.

Stephen, F. M., V. B. Salisbury, F. Limp and **D. J. Crook**. (2002). Red Oak Borer, *Enaphalodes rufulus* (Coleoptera: Cerambycidae): A remarkable epidemic of Oak Mortality in the Interior Highland Forests. AFRC-CES sponsored symposium in Little Rock, AR May 23, 2002.

**Crook, D. J.**, R. A. Higgins and S. B. Ramaswamy (2003). Antennal morphology of the soybean stem borer *Dectes texanus texanus* LeConte (Coleoptera: Cerambycidae) *Journal of the Kansas Entomological Society*. 76 (3) 397-405.

**Crook, D. J.**, Hopper, J. A., Ramaswamy, S. B. and R. A. Higgins (2004). Courtship behavior of the soybean stem borer *Dectes texanus texanus* (Coleoptera: Cerambycidae): evidence for a female contact sex pheromone. *Annals of the Entomological Society of America*. 97(3) 600-604.

**Crook, D. J.**, F. M. Stephen, M. K. Fierke, D. L. Kinney and V. B. Salisbury (2004). Biology and sampling of red oak borer populations in the Ozark mountains of Arkansas. Spetich, M.A., ed. Upland Oak Ecology. A Symposium: history, current conditions, and sustainability. Gen. Tech. Rep. SRS-73. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station: 223-228.

Fierke, M. K., D. L. Kinney, V. B. Salisbury, **D. J. Crook** and F. M. Stephen (2005). Development and Comparison of Intensive and Extensive Sampling Methods and Preliminary Within-Tree Population Estimates of Red Oak Borer (Coleoptera: Cerambycidae) in the Ozark Mountains of Arkansas. *Environmental Entomology*. 34 (1) 184-192.

Fierke, M. K., D. L. Kinney, V. B. Salisbury, **D. J. Crook** & F. M. Stephen (2005). A rapid estimation procedure for within-tree populations of red oak borer (Coleoptera: Cerambycidae). *Forest Ecology and Management* 215: 163-168.

**Crook, D. J.**, M. K. Fierke, D. L. Kinney, V. B. Salisbury and F. M. Stephen. (2007). Optimization of Sampling Methods for Within-tree Populations of Red Oak Borer, *Enaphalodes rufulus* (Haldeman) (Coleoptera: Cerambycidae). *Environmental Entomology* 36: 589-594.

**Crook, D. J.**, A. Khimian, J. A. Francese, I. Fraser, T. M. Poland, A. J. Sawyer & V. C. Mastro (2008). Development of a host based semiochemical lure for trapping emerald ash borer *Agrilus planipennis* (Coleoptera: Buprestidae). *Environmental Entomology*. 37: 356-365.

**Crook, D. J.**, L. M. Kerr & V. C. Mastro (2008). Sensilla on the antennal flagellum of *Sirex noctilio* (Hymenoptera: Siricidae). *Annals of the Entomological Society of America*. 101 (6): 1094-1102.

**Crook, D. J.**, L. M. Kerr & V. C. Mastro (2008). Distribution and fine structure of antennal sensilla in emerald ash borer (Coleoptera: Buprestidae). *Annals of the Entomological Society of America*. 101 (6): 1103-1111.

**Crook, D. J.**, S. Prabhakar & B. Oppert (2009). Protein digestion in larvae of the red oak borer, *Enaphalodes rufulus*. *Physiological Entomology*. 34: 152-157.

**Crook, D. J.**, J. A. Francese, K. E. Zylstra, I. Fraser, A. J. Sawyer, D. W. Bartels, D. R. Lance & V. C. Mastro (2009). Laboratory and field response of the emerald ash borer (Coleoptera: Buprestidae) to selected regions of the electromagnetic spectrum. *Journal of Economic Entomology*. 102 (6): 2160-2169.

Böröczky, K., **D. J. Crook**, T. H. Jones, J. C. Kenny, K. E. Zylstra, V. C. Mastro & J. H. Tumlinson (2009). Monoalkenes as contact sex pheromone components of the woodwasp *Sirex noctilio*. *Journal of Chemical Ecology*. 35: 1202–1211.

**Crook, D. J.** & V. C. Mastro (2010). Chemical ecology of the emerald ash borer *Agrilus planipennis*. *Journal of Chemical Ecology*. (Review article) 36: 101–112.

Francese, J. A., **D. J. Crook**, I. Fraser, D. R. Lance, A. J. Sawyer, and V. C. Mastro. (2010). Optimization of trap color for the emerald ash borer, *Agrilus planipennis* (Coleoptera: Buprestidae). *Journal of Economic Entomology* 103 (4): 1235-1241.

Francese, J. A., I. Fraser, M. L. Rietz, **D. J. Crook**, D. R. Lance and V. C. Mastro. (2010). Relation of prism trap color, size, and canopy placement in determining capture of emerald ash borer (Coleoptera: Buprestidae). *Can. Entomol.* 142: 596-600.

Silk, P. J., K. Ryall, P. Mayo, M. A. Lemay, G. Grant, **D. J. Crook**, A. Cossé, I. Fraser, J. D. Sweeney, D. B. Lyons, D. Pitt, T. Scarr and D. Magee. (2011). Evidence for a volatile pheromone in *Agrilus planipennis* Fairmaire (Coleoptera: Buprestidae) that increases attraction to a host foliar volatile. *Environmental Entomology* 40 (4): 904-916.

Khirmian, A. Cossé, A. and **D. J. Crook**. (2011). Absolute configuration of 7-epi-sesquithujene. *Journal of Natural Products*. 74, 1414–1420.

**Crook, D. J.**, K. Böröczky, K. E. Zylstra, V. C. Mastro and J. H. Tumlinson. (2012). Chapter 11. The Chemical ecology of *Sirex noctilio* - A review. pp. 149-158. In 'The Sirex Woodwasp: Expanding Frontiers - 100 years of dealing with an invasive, mutualistic insect-fungus forest pestilence' (B. Slippers & P. de Groot, Eds.) Springer Press.

**D. J. Crook**, A. Khirmian, A. Cossé, I. Fraser, and V. C. Mastro. (2012). Influence of trap color and host volatiles on capture of the emerald ash borer, *Agrilus planipennis* (Coleoptera: Buprestidae). *Journal of Economic Entomology* (accepted Nov 7 2011, In press).

**D. J. Crook**, E. L. Hibbard and V. C. Mastro. (2012). A comparison of electrophysiologically determined spectral responses in six sub-species of *Lymantria*. *Physiological Entomology*. (in prep)

Böröczky, K., **D. J. Crook**, T. H. Jones, J. C. Kenny, K. E. Zylstra, V. C. Mastro & J. H. Tumlinson (2009) Monoalkenes as contact sex pheromone components of the woodwasp *Sirex noctilio*. *Journal of Chemical Ecology*. 35: 1202–1211.

**Crook, D. J.** & V. C. Mastro (2010) Chemical ecology of the emerald ash borer *Agrilus planipennis*. *Journal of Chemical Ecology*. (Review article) 36: 101–112.

**D. J. Crook**, K. Böröczky, K. E. Zylstra, V. C. Mastro and J. H. Tumlinson (2010) The Chemical ecology of *Sirex noctilio* - A review. In 'The Sirex Woodwasp: Expanding Frontiers - 100 years of dealing with an invasive, mutualistic insect-fungus forest pestilence' (B. Slippers & P. de Groot, Eds.) Springer Press. (In press).

J. A. Francese, **D. J. Crook**, I. Fraser, D. R. Lance, A. J. Sawyer, and V. C. Mastro. (2010) Optimization of trap color for the emerald ash borer, *Agrilus planipennis* (Coleoptera: Buprestidae). *Journal of Economic Entomology* (In review).

J. A. Francese, I. Fraser, M. L. Rietz, **D. J. Crook**, D. R. Lance, and V. C. Mastro. 2010. Increasing the efficiency of survey methodology for the emerald ash borer (Coleoptera: Buprestidae). *Canadian Entomologist* (In prep).