

Selected Publications of Mike Villani

- Villani, M.G., Allee, L.L., Preston-Wilsey, L., Consolie, N., Xia, Y., Brandenburg, R.L.** Use of radiography and tunnel castings for observing mole cricket behavior in soil. *American Entomologist*.
- Fergusson-Kolmes, L., Fry, R.C., and Villani, M.G.** Investigations of the virulence of *Metarhizium anisopliae* (Deuteromycetes) against two scarab species: Japanese beetles (*Popillia japonica* Newman), and Cranberry root grubs (*Lichnanthe vulpina* Hentz). *J. Environ. Entomol.*
- Dalthorp, D., Nyrop, J.P., and Villani, M.G.** 2000. Spatial ecology of Japanese beetle. *Ent. Exp. & Applic.* 96:129-139.
- Dalthorp, D., Nyrop, J.P., and Villani, M.G.** 2000. Foundations of spatial ecology: descriptions of patch characteristics and pattern repetition. *Ent. Exp. & Applic.* 96:119-127.
- Diaz, A., K. Okabe, C.J. Eckenrode, M.G. Villani, and B. O'Conner.** 2000. Biology, ecology, and management of bulb mites of the genus *Rhizoglyphus* (Claparede) (Acari: *Acaridae*). *Exp. & Appl. Acarology* 24:85-113.
- English-Loeb, G., Villani, M.G., Martinson, T., Forsline, A., and Consolie, N.** 1999. Use of entomopathogenic nematodes for control of grape phylloxera, *Daktulosphaira vitifolia*, (Homoptera: *Phylloxeridae*): a laboratory evaluation. *Environ. Entomol.* 28: 890-894.
- Alm, S.R., Villani, M.G., & Roelofs, W.L.** 1999. Oriental beetles (Coleoptera: *Scarabaeidae*): Current distribution in the United States and optimization of monitoring traps. *J. Econ. Entomol.* 92: 931-935.
- Portillo-Aguilar, C., Villani, M.G., Tauber, M., Tauber, C., and Nyrop, J.P.** 1999. Movement and infectivity of three entomopathogenic nematode species (Rhabditida: *Heterorhabditidae* and *Steinernematidae*). Effect of soil texture and bulk density. *Environ. Entomol.* 28: 1021-1035.
- Cowles, R.S., Alm, S.R. and M.G. Villani.** 1999. Selective activity of Halofenozide to exotic white grubs (Coleoptera: *Scarabaeidae*) in turfgrass. *J. Econ. Entomol.* 92: 427-434.
- Facundo, H.T., Linn, C.E., Villani, M.G., and Roelofs, W.L.** 1999. Emergence, mating and mate locating behaviors of the Oriental beetle, *Anomala orientalis* (Coleoptera: *Scarabaeidae*). *J. Insect Behavior.* 12:175-192.
- Facundo, H.T., Villani, M.G., Linn, C.E., and Roelofs, W.L.** 1999. Temporal and Spatial distribution of the Oriental beetle, *Anomala orientalis* (Coleoptera: *Scarabaeidae*) in a golf course environment. *Environ. Entomol.* 28:14-21.
- Dalthorp, D., Nyrop, J.P., and Villani, M.G.** 1999. Estimation of local mean population densities of Japanese beetle grubs (Coleoptera: *Scarabaeidae*). *Environ. Entomol.* 28: 255-265.
- Tauber, M.J., Tauber, C.A., Nyrop, J.P., and Villani, M.G.** 1998. Moisture, a vital but neglected factor in the seasonal ecology of insects: hypotheses and tests of mechanisms. *Environ. Entomol.* 27:523-530.
- Steinkraus, K.H., Granados, R.R., McKenna, K.A., Villani, M.G., Robbins, P.S., and Mortlock, R.P.** 1998. Growth of *Paenibacillus* larvae, the causative agent of American foulbrood in honeybees and *Bacillus popilliae*, the causative agent of milky disease of beetle larvae in Lepidoptera tissue culture. *Acta Biotechnologica* 18:123-133.
- Alm, S.R., Villani, M.G., Yeh, T., and Shutter, R.** 1997. *Bacillus thuringiensis* var. *japonensis* strain *Buibui* for control of Japanese beetle and Oriental beetle larvae (Coleoptera: *Scarabaeidae*). *J. Applied Entomology and Zoology* 32:477-484.
- Fry, R.C., Fergusson-Kolmes, L.A., Kolmes, S.A., and Villani, M.G.** 1997. Radiographic study of Japanese beetle larvae response to incorporated particles of *Metarhizium anisopliae*. *J. NY Entomol. Soc.* 105:113-120.
- Zhang, A., Facundo, H. T., Robbins, P.S., Leal, W.S., Linn, C.E., Villani, M.G., and Roelofs, W.L.** 1997. Essential amino acid methyl esters: major sex pheromone of the cranberry white grub, *Phyllophaga anxia* (Coleoptera: *Scarabaeidae*). *Chem. Ecol.* 23:231-245.
- Brandenburg, R.L., Hertl, P.T., and Villani, M.G.** 1997. Integration and adoption of a mole cricket management program in North Carolina, USA. *International Turfgrass Society Research Journal* 8:973-979.
- Cowles, R.S. and M.G. Villani.** 1996. Susceptibility of Japanese beetle, Oriental beetle, and European chafer (Coleoptera: *Scarabaeidae*) to Halofenozide, an insect growth regulator. *J. Econ. Entomol.* 89:1556-1565.
- Nyrop, J.P., Villani, M.G. and Grant, J.** 1995. A control decision rule for European chafer grubs infesting residential lawns. *J. Econ. Entomol.* 24:521-528.

Scanning the Journals

Mike's publications record demonstrates his commitment to collaborations. Note his involvement in areas outside of turf, especially basic research with soil insect behavior.



Mike authored over 40 scientific publications with over 50 scientists. The Villani Soil Insect Laboratory at Cornell's Ag Experiment Station in Geneva continues to interact with scientists interested in exploring soil insect research techniques.

Scanning the Journals

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- Broadway, R.M. and M.G. Villani.** 1995. Does host range influence susceptibility of herbivorous insects to non-host plant proteinase inhibitors? *Entomologia Experimentalis et Applicata* 76:303-312.
- Villani, M.G., Krueger, S.R., Schroeder, P.C., Consolie, F., Consolie, N., Preston-Wilsey, L., and Roberts, D.W.** 1994. Soil application effects of *Metarhizium anisopliae* on Japanese beetle behavior and survival in turfgrass microcosms. *J. Environ. Entomol.* 23:502-513.
- Schroeder, P., C.S. Ferguson, E.J. Shields, and M.G. Villani.** 1994. Pathogenicity of Rhabditid nematodes to alfalfa snout beetle larvae. 1994. *J. Econ. Entomol.* 87:917-922.
- Cowles, R.S. and M.G. Villani.** 1994. Soil interactions with chemical insecticides and nematodes used to control Japanese beetle larvae. *J. Econ. Entomol.* 87:1014-1021.
- Zhang, A., Facundo, H.T., Robbins, P.S., Charleton, R., Linn, C.E., Hanula, J.S., Villani, M.G., and Roelofs, W.L.** 1994. Identification and synthesis of the female sex pheromone of the Oriental beetle, *Anomala orientalis* (Coleoptera: Scarabaeidae). *Chem. Ecol.* 2415-2427.
- Facundo, H.T., Zhang, A., Robbins, P.S., Alm, S.R., Linn, C.E., Villani, M.G., and Roelofs, W.L.** 1994. Sex pheromone responses of the Oriental beetle, *Anomala orientalis* (Coleoptera: Scarabaeidae). *Environ. Entomol.* 23:1508-1515.
- Schroeder, P., Villani, M.G., Ferguson, C.S., Nyrop, J.P., and E.J. Shields.** 1993. Behavioral interactions between Japanese beetle (Coleoptera: Scarabaeidae) grubs and an entomopathogenic nematode (Nematoda: Heterorhabditidae) within turfgrass microcosms. *J. Environ. Entomol.* 22:595-600.
- Krueger, S., M.G. Villani, A.S. Martins, and D.W. Roberts.** 1992. Efficacy of soil applications of *Metarhizium anisopliae* conidia, and standard and lyophilized mycelium particles against scarab grubs. *J. Invert. Path.* 59:54-60.
- Villani, M.G., and J.P. Nyrop.** 1991. Age dependent movement patterns of Japanese beetle and European chafer grubs in soil-turfgrass microcosms. *Environ. Entomol.* 20 (1):241-251.
- Krueger, S., M.G. Villani, J.P. Nyrop, and D.W. Roberts.** 1991. Effect of soil environment on the efficacy of fungal pathogens against scarab grubs in laboratory bioassays. *J. Biological Control* 1:203-209.
- Wright, R.J., M.G. Villani, and F. Agudelo-Silva.** 1988. Steinernematid and heterorhabditid nematodes for control of larval European chafers and Japanese beetles (Coleoptera: Scarabaeidae) in potted yews. *J. Econ. Entomol.* 81(1):152-157.
- Villani, M.G., R.J. Wright, and P.B. Baker.** 1988. Differential susceptibility of Japanese beetle, Oriental beetle and European chafer (Coleoptera: Scarabaeidae) larvae to five soil insecticides. *J. Econ. Entomol.* 81(3):785-788.
- Villani, M.G., and R.J. Wright.** 1988. Entomogenous nematodes as biological control agents of European chafer and Japanese beetle (Coleoptera: Scarabaeidae) larvae in turf. *J. Econ. Entomol.* 81(2):484-487.
- Villani, M.G., and R.J. Wright.** 1988. Radiography in behavioral studies of turf-infesting scarab grub species (Coleoptera: Scarabaeidae). *Bull. Entomol. Soc. Am.* 34(3):132-144.
- Cooper-Driver, G.A., M.N. Du, M.G. Villani, and P.W. LeQuesne.** 1987. Kaurene derivatives from the leaves of *Solidago nemoralis*. *J. Nat. Prod.* 50:327.
- Villani, M.G., and F. Gould.** 1986. Use of radiographs for movement analysis of the corn wireworm, *Melanotus communis*. *J. Environ. Entomol.* 15(3):462-464.
- Cooper-Driver, G.A., P.W. LeQuesne, and M.G. Villani.** 1986. Biologically active diterpenes from *Solidago* species: plant-insect interactions. *Stud. Org. Chem.* 26:271-282.
- Villani, M.G., L.J. Meinke, and F. Gould.** 1985. Laboratory bioassay of crude extracts as antifeedants for the southern corn rootworm. *J. Environ. Entomol.* 14:617-619.
- Villani, M.G., and F. Gould.** 1985. Screening of crude plant extracts as feeding deterrents of the wireworm, *Melanotus communis*. *Ent. Exp. & Applic.* 37:95-100.
- Villani, M.G., and F. Gould.** 1985. Butterfily milkweed as a feeding deterrent of the wireworm, *Melanotus communis*. *Ent. Exp. & Applic.* 37:69-75.

Peer Reviewed Book Chapters

- Villani, M.G., Allee, L.L., Diaz, A., and Robbins, P.S.** 1999. Adaptive strategies of edaphic arthropods. In: *Ann. Rev. of Ent.* 44:233-256.
- Alm, S., Villani, M.G. and Klein, M.G.** 1995. The Oriental Beetle. In: Brandenburg, R., and M.G. Villani (eds). *ESA Handbook of Turf-*

