

James E. Keller

Education: Andrews University Biology 1973-1976
Michigan State University Fisheries and Wildlife 1980-1983

Awards and Honors: General Abrams Outstanding Trainee Award, 1978
Jack Breslin Distinguished Staff Award, MSU, 1990

Professional Work Experience: 1983-present Lab Research Tech II MSU
1981-1983 Lab Research Aide I MSU

Other Work Experience: Child Care Worker Whaley Children's Center
Medic (91B) US Army
Furniture Finisher Kaywood Corporation
Residential Painter Little Residential Painting
Swimming Pool Construction Keller Pools
Greenhouse Aide Adelphian Academy
Residential Construction Keller Brothers Construction
Electrical, Plumbing and Heating Aide Keller Electrical & Heating

Lab Research Skills:

General duties	Ordering supplies, cleaning and organizing lab , keeping a data base of chemicals and supplies, lab safety, construction of unique lab research apparatus, aiding in design and execution of research experiments, extensive data collection, repairing lab equipment, knowing where to purchase unusual products, networking, repairing and upgrading computers and troubleshooting
Insect rearing	Developing specific procedures used for raising various species of insects
Natural products/ Protein isolation	Running Native and SDS Polyacrylamide Gel Electrophoresis (PAGE), Capillary Electrophoresis, Low Pressure (LPLC) and High Performance Liquid Chromatography (HPLC) analyses
Microscopy	Using light and dissecting microscopes, dissection and micro-dissection and micro/macro photography
Videography	Designing micro behavior video studios, lighting techniques and editing video presentations
Photography	Preparing slides used in national conference presentations
Experimental design	Using randomized complete block, Latin square and statistical analysis

Computer Skills:

Operating systems	Competency in using DOS, Win 3.1, Windows for Workgroups, Win95 and Macintosh operating systems
Upgrading	Installing operating system software, software upgrades, hardware drivers, motherboards, CPU's, RAM, modems, hard drives, sound systems (sound cards and CD drives) and Ethernet cards
Networking	Setting up networks through Win95 and Windows for Workgroups, TCP/IP, MACTCP, PCTCP and configuring ftp and e-mail sites
Software	Using Microsoft Office/Office 95/Office97, Word Perfect, Corel Word Perfect, Adobe Photoshop, Eudora, WS_FTP, Netscape, FrontPage97 and Norton AntiVirus software
Web pages	Constructing web pages using html, JAVA, and GIF animation (see http://pilot.msu.edu/user/kellerj & http://pilot.msu.edu/user/miller20)
Troubleshooting	Resolving software, networking and printer problems and resource conflicts (ROM addresses, IRQs and DMAs)
Professional growth	Reading computer magazines and online publications to keep up to date on hardware and software issues

Audio-Visual Skills:

Photography	Experience in micro/macro photography, telephotography, scanning and editing images using Photoshop, assembling presentations and slide shows using Microsoft PowerPoint
Videography	Using the correct video camera for the best results, setting up a video studio, choosing lighting and backgrounds and editing video presentations

Handyman Skills:

Woodworking and Construction	Building houses and additions, cabinets and furniture, Plexiglas apparatus, remodeling kitchens and basements and installing swimming pools
Plumbing and heating	Installing and repairing copper and plastic plumbing, faucets, toilets and hot water or forced air heating systems
Electrical	Wiring a house and minor repair of electrical appliances

Teaching Skills:

Elementary education	Presenting information about astronomy and insects to grades K-5
College level	Assisting in insect physiology and behavior labs

References: Available upon request

Publications (refereed):

- Harris, M.O., J.E. Keller and J.R. Miller. 1987. Response to n-dipropyl disulfide by ovipositing onion flies: effects of concentration and site of release. *J. Chem. Ecol.* 13(5): 1261-1277.
- Mishra, S.K., J.E. Keller, J.R. Miller, R.M. Heisey, M.G. Nair and A.R. Putnam. 1987. Insecticidal and nematocidal properties of microbial metabolites. *J. Industrial Microbiol.* 2:267-276,
- Heisey, R.M., J. Huang, S.K. Mishra, J.E. Keller, J.R. Miller and A.R. Putnam. 1988. Production of valinomycin, an insecticidal antibiotic, by *Streptomyces griseus* var. *flexipertum* var. *nov.* *J. Agric. Food Chem.* 36:1283-1286.
- Heisey, R.M., S.K. Mishra, A.R. Putnam, J.R. Miller, C.J. Whitenack, J.E. Keller, and J. Huang. 1988, Production of herbicidal and insecticidal metabolites by soil microorganisms. pp. 65-78, In H.G. Cutler (ed.) Biologically Active Natural Products – Potential Use In Agriculture. ACS Symposium Series, American Chemical Society, Washington, D.C.
- Cowles, R.S., J.E. Keller and J.R. Miller. 1989. Pungent spices, ground red pepper and synthetic capsaicin as onion fly ovipositional deterrents. *J. Chem. Ecol.* 15:719-730
- Mowry, T.M., J.E. Keller and J.R. Miller. 1989. Oviposition of *Delia antiqua* (Diptera: Anthomyiidae) as influenced by substrate holes and particle size. *Ann. Entomol. Soc. Am.* 82:126-131.
- Nair, M.G., A.R. Putnam, S.K. Mishra, M.H. Mulks, W.H. Taft, J.E. Keller, and J.R. Miller. 1989. Faeriefungin; a new broad spectrum antibiotic from *Streptomyces griseus* var. *autotrophicus*. *J. Natural Products* 52:797-809.
- Mowry, T.A., J.L. Spencer, J.E. Keller and J.R. Miller. 1989. Onion fly egg depositional behaviour: pinpointing host acceptance by an insect herbivore. *J. Insect Physiol.* 35:331-339.
- Keller, J.E. and J.R. Miller. 1990. Onion fly (Diptera: Anthomyiidae) oviposition as influenced by soil temperature. *Entomol. exp. ck appl.* 54:37-42.
- Weston, P.A., J.E. Keller and J.R. Miller. 1992. Oviposition stimulus deprivation and its effect on lifetime fecundity of *Delia antiqua* (Meigen) Diptera: Anthomyiidae. *Environ. Entomol.* 21: 560-565.
- Spencer, J.L., G.L. Bush, Jr., J.E. Keller and J.R. Miller. 1992. Modification of female onion fly, *Delia antiqua* (Meigen), behavior by male paragonial gland extracts. *J. Insect Behav.* 5:689-697.
- Miller, J.R., J.L. Spencer, A.J. Lentz, J.E. Keller, E.D. Walker and J.F. Leykam. 1994. Sex peptides: Important and useful regulations of insect reproduction? In: P. Hedin, R. Hollingworth and J. Menn (eds.). Natural and Derived Pest Management Agents, pp.189-209. ACS Symposium Series 551, American Chemical Society, Washington, D.C.
- Spencer, J.L., M.P. Candolfi, J.E. Keller, and J.R. Miller. 1995. Onion fly, *Delia antiqua*, Oviposition and Mating as Influenced by Insect Age and Dosage of Male Reproductive Tract Extract (Diptera: Anthomyiidae) *J. Insect Behav.* 8:617-635.
- Spencer, J.L., M.P. Candolfi, J.E. Keller, and J.R. Miller. 1997. Specificity of accessory gland extracts in three *Delia* fly species (Diptera: Anthomyiidae) *Physiological Entomology* 22:175-182.