

## BIOGRAPHICAL SKETCH

Forrest L. Mitchell

### Professional Preparation

Texas A&M University	Wildlife and Fisheries Science	B.S.	1977
Texas A&M University	Entomology	M.S.	1980
Louisiana State University	Entomology	Ph.D.	1985

### Appointments

2008-Present	Professor, Texas AgriLife Research, Stephenville and Department of Entomology, Texas A&M University, College Station
1990-Present	Adjunct Professor, Department of Biology, Tarleton State University, Stephenville, TX
2003-present	Adjunct Professor, Department of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK
2014-Present	Adjunct Professor, University of North Texas, Denton, TX
1997-2008	Associate Professor, Texas Agricultural Experiment Station, Stephenville and Department of Entomology, Texas A&M University, College Station
1991-1997	Assistant Professor, Texas Agricultural Experiment Station, Stephenville and Department of Entomology, Texas A&M University
1986-1991	Assistant Research Scientist, Texas Agricultural Experiment Station, Stephenville and Department of Entomology, Texas A&M University
1984-1986	Research Associate, Texas Agricultural Experiment Station, Stephenville and Department of Entomology, Texas A&M University
1980-1984	Research Assistant, Department of Entomology, Louisiana State Univ., Baton Rouge, LA
1978-1980	Research Assistant, Department of Entomology, Texas A&M University

The entomology research program at the Texas A&M AgriLife Research and Extension Center in Stephenville has been under the supervision of Dr. Mitchell since 1984. Projects include:

- Using specific planting times - a planting window - to reduce insect-transmitted tomato-spotted wilt virus in peanut and thus reduce the many tons of insecticide that were being used to manage the insect vectors. This tactic was part of a successful management program credited with saving millions of dollars per year and was showcased as an IPM success at the departmental centennial celebration.
- Development of an inexpensive trap crop protocol that defends large melon fields from destruction by insect transmitted Cucurbit Yellow Vine Disease. The insect vector is attracted to the small trap crops and may be destroyed with minimal amounts of insecticide rather than whole field treatments.
- Research into the epidemiology of a native protozoan parasite that has infected large numbers of red imported fire ants. The program completed a statewide survey, finding more than 25% of the fire ant nests in 75% of the infested counties were naturally infected by this pathogen, which causes chronic disease and death in these ants.

### Recent Refereed Publications \*Denotes a student or post-doc

**Arthurs, S., K. Heinz and F. L. Mitchell. 2018.** Comparison of *Frankliniella fusca* and *F. occidentalis* (Thysanoptera: Thripidae) as vectors for a peanut strain of tomato spotted wilt orthotospovirus. *Environ. Entomol.*: In Press.

**Armstrong, J. S., L. A. Camelo\*, K. Zhu-Salzman, and F. L. Mitchell. 2016.** Effects of Cysteine Proteinase Inhibitors scN and E-64 on Southern Corn Rootworm Larval Development. *Southwestern Entomologist* 41(2):337-346.

**Kurwadkar, S., A. Evans, D. DeWinne\*, P. White, and F. Mitchell. (2015),** Modeling photodegradation kinetics of three systemic neonicotinoids – dinotefuran, imidacloprid and thiamethoxam in aqueous and soil environment. *Environ Toxicol Chem.* Accepted Author Manuscript. doi:10.1002/etc.3335

**Kurwadkar, S, X. Zhang, D. Ramirez and F.L. Mitchell (eds.) 2015.** Emerging Micro-Pollutants in the Environment: Occurrence, Fate and Distribution. American Chemical Society Publication Date: August 26, 2015. ISBN13:9780841230781 eISBN:9780841230798 DOI:10.1021/bk-2015-1198. 213 pp.

**Lasswell, J. L. and F. L. Mitchell. 2014.** Dragonflies of North Carolina, South Carolina and Georgia: A Guide to Common and Notable Species. Quick Reference Publishing, ISBN: 978-1-936913-86-23. 12 pp.

**Kurwadkar, S., R. Wheat\*, D. G. McGahan, and F. Mitchell. 2014.** Evaluation of leaching potential of three systemic neonicotinoid insecticides in vineyard soil. J. Contaminant Hydrology. 170:86-94

**Kurwadkar, S. T., D. DeWinne\*, R. Wheat\*, D. G. McGahan and F. L. Mitchell. 2013.** Time dependent sorption behavior of dinotefuran, imidacloprid and thiamethoxam. J. Environ. Sci & Health B 48: 1-6

**Lasswell, L. L. and F. L. Mitchell. 2013.** Dragonflies of Florida: A Guide to Common and Notable Species. Quick Reference Publishing: ISBN 978-1-936913-47-3 12pp

**Mitchell, F. L. 2012.** May you live in interesting times: Technology and Entomology. In: (Lemelin, R. H. ed) The Management of Insects in Recreation and Tourism. Cambridge University Press, UK. 365 pp. ISBN:9781107012882.

**Brady, J.A., J. B. Faske, R. A. Ator\*, J. M. Castaneda-Gill\*, F. L. Mitchell. 2012.** Probe-based real-time PCR method for multilocus melt typing of *Xylella fastidiosa* strains. J. Microbiological Methods: 89: 12-17.

### Summary of Traditional Academic Achievements

Students	Co-Chair		Member		Non-Thesis	Interns
	MS	PhD	MS	PhD		
Texas A&M University	1	2	3	3		
Tarleton State University	6		11		1	5
Oklahoma State University			1			
Other (Texas Tech, Univ. Nebraska, U North Texas)	2			1		
<i>Total Students</i>	36					

*Publications: 70*

*Presentations: ~120*

*Grant Funds: ~\$6.0M since 1984*

#### Grant Supported projects:

##### **Texas Invasive Ant Research and Management 2013-2016**

F. L. Mitchell and J. Brady.

Title: Demonstrating the efficacy of an insect growth regulator (IGR) to potentiate infection of *Solenopsis invicta* colonies by the protozoan parasite *Kneallhazia (Thelohania) solenopsae*

Duration: September 2013 – August 2016

Total Funds: \$131,000

##### **USDA-IPM Seed Grant**

A. Knutson, F. L. Mitchell, V. Corriher-Olson and J. P. Muir.

Title: Developing IPM Practices for bermudagrass stem maggot in forage production.

Duration: 2016-2017

Total Funds: \$27,980

##### **Genomic Systems Approach to Vector-borne Diseases Seed Grant Program**

F. L. Mitchell and J. A. Brady

Title: Pollen as a Reservoir for RNA Viruses Vectored by Mites to Native and Honey Bees

Duration: 2016-2017

Total Funds: \$4,570