

CHERYL FRANK SULLIVAN

AFFILIATION

The University of Vermont, Department of Plant & Soil Science, Entomology Research Laboratory
661 Spear Street, Burlington, VT 05405-0105. Tel: 802-656-5434, Fax: 802-656-5441
E-mail: cfrank@uvm.edu Websites: <http://www.uvm.edu/~entlab/> | <https://www.uvm.edu/~uvmticks>
[ResearchGate](#) | [Instagram](#)

EDUCATION

University of Vermont, Burlington, VT

Ph.D. 2021 College of Agriculture & Life Sciences - Entomology
M.S. 2012 College of Agriculture & Life Sciences - Biological Control/Integrated Pest Management
B.S. (with honors) 2003 School of Natural Resources - Environmental Science/Conservation Biology

PROFESSIONAL EXPERIENCE, BOARDS & COMMITTEES

2022 – Present Research Assistant Professor - Univ. of VT, Entomology Research Laboratory
2005 – 2022 Research Technician - Univ. of VT, Entomology Research Laboratory

Member of a dynamic research team made up of senior scientists, technicians and graduate students. Design, conduct and analyze laboratory and field research on the biological control and integrated pest management (IPM) of tick vectors and agricultural and exotic forest pests. Primary research emphasis focused on pest surveillance, biotechnology (microbial biopesticide development - entomopathogenic fungi), parasitoids and predatory arthropod-pest interactions and development of IPM systems to sustain pollinators and beneficial insects that provide pest management services. Assists with coordinating annual Tri-State IPM workshops and biennial Northeastern High Tunnel Conference for greenhouse and high tunnel growers and assists with IPM public awareness/education programs. Provides one-on-one training to greenhouse and high tunnel growers statewide on practices towards reducing chemical insecticide applications using IPM while emphasizing biological control.

2014 – 2020 Board Member, Representative Chittenden County, VT Fish & Wildlife Dept.
2017 – 2019 Board of Directors Member, Outdoors Woman, Inc.
2017 – 2019 Advisory Board Member, The Center for Technology, Essex
June 2003 – Dec. 2003 Environmental Analyst I, VT Dept. of Environmental Conservation
May 2003 Watershed Educator – Watershed Alliance, Burlington, Vermont
2002 – 2003 Research Assistant - Gund Institute for Ecological Economics, Univ. of VT
2001- 2003 Lab and Field Technician - VT Monitoring Cooperative, Univ. of VT
May 2001 – Aug. 2001 Lab and Field Assistant - Rubenstein Ecosystem Science Laboratory, Univ. of VT

SELECTED PUBLICATIONS (Refereed Journals)

- 2023** Occi, J.L., D.C. Price, M. Hall, V. Campbell, S. Stronsick, **C.F. Sullivan**, R. Persepane, J.G. Gonzalez; A. Toledo, D.M. Fonseca. Rickettsia and relapsing fever Borrelia in *Alectorobius kelleyi* (Ixodida: Argasidae) from peri domestic bats in the northeastern United States. Ticks & Tick-Borne Diseases. DOI: [10.1016/j.ttbdis.2023.102157](https://doi.org/10.1016/j.ttbdis.2023.102157)
- 2022** **Sullivan, C.F.**, Ghalehgalabbahani, A., Parker, B.L., and Skinner, M. Mortality of various-age larval winter ticks, *Dermacentor albipictus*, following surface contact with commercial mycoacaricides. Experimental Parasitology. 108292. DOI: [10.1016/j.exppara.2022.108292](https://doi.org/10.1016/j.exppara.2022.108292)
- 2022** Ghalehgalabbahani, A., **C.F. Sullivan**, B. Davari, B.L. Parker, A. Razavi & M. Skinner. Biological control of *Rhizoglyphus robini* using the entomopathogenic fungus, *Metarhizium brunneum* and predatory mite, *Stratiolaelaps scimitus* under laboratory conditions. Experimental and Applied Acarology. 87(1):19-29. DOI: [10.1007/s10493-022-00719-6](https://doi.org/10.1007/s10493-022-00719-6)
- 2022** **Sullivan, C.F.**, Parker, B.L., Skinner, M. Survival of off-host *Dermacentor albipictus* (Acari: Ixodidae) adult females and larvae underwater. Canadian Journal of Zoology. DOI: [10.1139/cjz-2022-0003](https://doi.org/10.1139/cjz-2022-0003)

- 2022** Sullivan, C.F., Parker, B.L., Skinner, M. A review of commercial *Beauveria*- and *Metarhizium*-based biopesticides for the biological control of ticks in the USA. Insects – Special Issue – Ecology of Ticks and Their Control. 13(3), 260; [10.3390/insects13030260](https://doi.org/10.3390/insects13030260)
- 2022** Sullivan, C.F., Occi, J., Brennan, J., Robbins, R., Skinner, M., Bennett, A., Parker, B.L., Fonseca, D. First report of the bat tick *Carios kelleyi* (Acari: Ixodida: Argasidae) from Vermont, USA. Journal of Medical Entomology. DOI: [10.1093/jme/tjab232](https://doi.org/10.1093/jme/tjab232)
- 2021** Sullivan, C.F., Parker, B.L., Kim, J.S., and Skinner, M. Effectiveness of granular formulations of *Metarhizium anisopliae* and *Metarhizium brunneum* (Hymenoptera: Clavicipitaceae) on off-host larvae of *Dermacentor albipictus* (Acari: Ixodidae). Biocontrol Sci Tech. DOI: [10.1080/09583157.2021.1926428](https://doi.org/10.1080/09583157.2021.1926428)
- 2021** Davari, A., Parker, B., Sullivan, C., Ghalehgholabbehbahani, A., & Skinner, M. Biological control of Western flower thrips, *Frankliniella occidentalis* using a self-sustaining granular fungal treatment. *Bulletin of Entomological Research*, 1-6. DOI: [10.1017/S0007485321000365](https://doi.org/10.1017/S0007485321000365)
- 2020** Sullivan, C.F., Parker, B.L., Davari, A., Lee, M.R., Kim, J.S., and Skinner, M. Evaluation of spray applications of *Metarhizium anisopliae*, *Metarhizium brunneum* and *Beauveria bassiana* against larval winter ticks, *Dermacentor albipictus*. Exp Appl Acarol, 82:559–570. DOI: [10.1007/s10493-020-00547-6](https://doi.org/10.1007/s10493-020-00547-6)
- 2020** Sullivan, C.F., Parker, B.L., Davari, A., Lee, M.R., Kim, J.S., and Skinner, M. Pathogenicity of *Metarhizium anisopliae* and *Metarhizium brunneum* isolates and efficacy of Met52 G against winter tick larvae, 2019. Arthropod Management Tests, 45:1-3. DOI: [10.1093/amt/tsaa100](https://doi.org/10.1093/amt/tsaa100)
- 2019** Skinner, M., C.F. Sullivan, B.L. Parker. [Chapter 15. Integrated Pest Management in Greenhouse and Other Protected Environments](#). In: Integrated management of insect pests: Current and Future Developments Eds: M. Kogan & E.A. Heinrichs, Burleigh Dodds Science Publ. Cambridge, UK.
- 2012** Skinner, M., S. Gouli, C. Frank, B.L. Parker & J.S. Kim. Management of *Frankliniella occidentalis* (Thysanoptera: Thripidae) with granular formulations of entomopathogenic fungi. Biological Control 63 (3): 246–252. DOI: [10.1016/j.biocontrol.2012.08.004](https://doi.org/10.1016/j.biocontrol.2012.08.004)

PRESENTATIONS/WORKSHOPS (from past 3 years)

- 2023** Sullivan, C.F., A. Wallingford. High Tunnel Pests Old & New. Mar. 8, 2023. Vermont Vegetable & Berry Growers Association Spring Seminar Series. Online Webinar. <https://youtu.be/whmDx7X0sAk>
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 6: Communicating Scouting Information. Mar. 8, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 5: How to Make Scouting Easier. Mar. 1, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 5: Whitefly Natural Enemies. Greenhouse Scout School. Mar. 1, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 4: Aphid Natural Enemies. Greenhouse Scout School. Feb. 22, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 4: Some Critical Questions to Consider While Scouting Greenhouse Ornamentals. Greenhouse Scout School. Feb. 22, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 3: Identification of spider mite natural enemies. Greenhouse Scout School. Feb. 15, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 2: Identification of thrips natural enemies. Greenhouse Scout School. Feb. 8, 2023. Online Certificate Course/Webinar.
- 2023** Sullivan, C.F., J. Sanderson, R. Lamb, M. Daughtrey, S. Burnett, E. Lobdell. Session 1: Identification of fungus gnat & shorefly natural enemies. Greenhouse Scout School. Feb. 1, 2023. Online Certificate Course/Webinar.

- 2023** Sullivan, C.F., M. Skinner. Vegetable IPM in High Tunnels. VT USDA NRCS Integrated Pest Management Training. 2/6/2023 (online)
- 2023** Skinner, M., C.F. Sullivan, A. Hazelrigg, R. Maden, R. Sideman, A. Wallingford et al. SARE High Tunnel Advisory Committee Meeting 1.
- 2023** Sullivan, C.F., M. Skinner, B.L. Parker. UV to Manage Western Flower. Pest management research short reports & open discussion. Tri-State Greenhouse IPM Workshop, Session 1. 1/19/2023 (online)
- 2023** Skinner, M., C. F. Sullivan, J.C. Chong, J. Webber, B. Krug, V. Choppakalta, et al. The ABCs of A Better Crop. 26th Annual Tri-State Greenhouse IPM Program Workshop, January 19 (Session1) & 26 (Session2), 2023. (online)
- 2022** Sullivan, C.F. & M. Skinner. Self-sustaining *Beauveria bassiana* granules for the biological control of Western flower thrips, *Frankliniella occidentalis*. ESA, ESC, and ESBC Joint Annual Meeting Incorporating Microbials into the Culture of IPM; On-Demand Presentations November 13-16, 2022, Vancouver, British Columbia (Online)
- 2022** Sullivan, C.F., A. Bennett. Getting batty about the soft tick: Part 1: Bat ticks (& bugs). State of Vermont, Pest Management Operators Meeting. November 1, 2022.
- 2022** Sullivan, C.F. & M. Skinner. Benefits for beneficials – habitat plantings discussion. Research Highlights Tour - Vermont Nursery and Landscape Association Summer Meeting. UVM Horticultural Research Farm. Aug. 25, 2022
- 2022** Sullivan, C.F. & M. Skinner. Benefits for Beneficials: Habitat Hedges. Public webinar in place of cancelled on-site demo (rain). August 17, 2022. (Online)
- 2022** Sullivan, C.F. & M. Skinner. High Tunnel Pests & Natural Enemies 101. UVM Farmer Training Program Guest Lecturer. UVM Horticultural Research Farm. July 13, 2022
- 2022** Skinner, M. & C. Frank Sullivan. Un-Bee-lievable Beneficials 101. Univ. of VT, Master Gardener Seminar. May 25, 2022. Online.
- 2022** Sullivan, C.F. Mycoacaricides for the biological control of ticks: The winter tick (*Dermacentor albipictus*) and moose. Ecology & Evolution Seminar - Rutgers University, instructed by Dr. Dina Fonseca. April 8, 2022. Online.
- 2022** Donovan, T. & C. Frank Sullivan. Moose Ecology & Winter Ticks. USGS Wildlife Disease Group Meeting. March 31, 2022. Online.
- 2022** Donovan, T. & C. Frank Sullivan. Moose Ecology & Winter Ticks. Guest Speaker: Wildlife Health & Conservation (ASCI 147), University of Vermont, instructed by Dr. Krista Jones. March 22, 2022. Online.
- 2022** Skinner, M. & C. Frank Sullivan. Plant Mediated Systems in High Tunnels. Mid-Atlantic Fruit and Vegetable Convention. Feb. 1, 2022. Online.
- 2022** Skinner, M., C. Frank Sullivan, R. Cloyd, R. Buitenhuis, et al. Dealing with the root of the problem. 26th Annual Tri-State Greenhouse IPM Program Workshop, Online, January 20 (Session 1) & 27 (Session 2), 2022. Online.
- 2022** Sullivan, C. Frank, M. Skinner. Do-it-Yourself (DIY) Guardian Plant Systems for Western Flower Thrips. 26th Annual Tri-State Greenhouse IPM Program Workshop, Online, January 27 (Session 2), 2022. Online.
- 2021** Skinner, M., C. Frank Sullivan. Supporting wild pollinators on diversified vegetable farms. Vermont Vegetable and Berry Growers Association and UVM Extension Aug. 24, 2021, Intervale, Burlington, VT.
- 2021** Sullivan, C.F. *Metarhizium anisopliae*, *Metarhizium brunneum* and *Beauveria bassiana* formulations for biological control of larval winter ticks, *Dermacentor albipictus*. Dissertation defense. July 13, 2021, Burlington, VT.
- 2021** Skinner, M., C. Frank Sullivan. New Farms for New Americans Urban Agriculture and Leadership Program Hands-On Training in IPM April 20, 2021, Intervale, Burlington, VT
- 2021** Sullivan, C. Frank. Ticks, Moose & Fungi. Harwood Middle School Guest Speaker. March 10, 2021. Online.
- 2021** Donovan, T. & C. Frank Sullivan. Winter Ticks & Management. Guest Speaker: Introduction to Biodiversity (University of Pittsburgh) instructed by Dr. Mary Puterbaugh Mulcahy. March 3, 2021.
- 2021** Donovan, T. & C. Frank Sullivan. Winter Ticks & Management. Guest Speaker: UVM RESNR-FOR/WFB 095 Intro to Forestry and Wildlife. February 17, 2021.