**Name:** Margaret J. Couvillon, Assistant Professor of Pollinator Biology and Ecology

**Education and Training:**

2007 Ph.D. in Behavioral Ecology, University of Sheffield, England

2004 M.S. in Neurobiology, Duke University, North Carolina

2000 B.S. in Biology, *summa cum laude*, Loyola University, Louisiana

**Research and Professional Experience:**

2017 – Present Assistant Professor, Department of Entomology, Virginia Tech, Blacksburg, VA

2015 – 2016 Honey Bee Science Consultant, European Food Safety Authority (EFSA), Parma, Italy

2009 – 2014 Postdoctoral Fellow, University of Sussex, Brighton, England

2009 – 2009 Adjunct Instructor, Department of Biology, Pima Community College, Tucson, Arizona

2007 – 2009 NIH Postdoctoral Research and Teaching Fellow, Center for Insect Science, University of Arizona, Tucson, Arizona

**Successful External Funding Since 2019**

Title: Bioindicators for a Sustainable Future: Dancing Honey Bees Communicate Habitats’ Ability to Feed Pollinators.

Investigator(s): **MJ Couvillon** (PI), R Schürch (Co-PI), SV Taylor (Co-PI), M O’Rourke (Co-PI).

Dates: 02/01/2018 – 01/31/2024.

Agency: Foundation for Food & Agriculture Research (FFAR)

Total Amount: $1,229,634 with 1:1 Matched Funding (Amount from FFAR: $614,817)

Title: The Future of Organic Beekeeping: Increasing Opportunities for Beekeepers through the Assessment of Honey Bee Foraging Patterns on Organic Farms  
Investigators: MM López-Uribe (PI), RM Underwood (Co-PI), **MJ Couvillon** (Co-PI), JD Fuentes (Co-PI), J Urbina (Co-PI), M Krammerer (Co-PI)

Dates: 09/01/2022 – 08/31/2026

Agency: National Institute of Food and Agriculture (NIFA)

Total Amount: $1,500,000 (Amount to MJC: $244,787)

Title: Impact of Thermacell Devices on Honey Bee Foraging and Recruitment.

Investigators: **MJ Couvillon** (Co-PI) and R Schürch (Co-PI)

Dates: 06/01/2022 – 05/31/2023

Agency: Thermacell, Inc.

Total Amount: $49,998 (Amount to MJC: $24,999)

Title: Perfect planting for Pollinators: Evidence-based Recommendations for Urban Pollinator Gardens.

Investigator(s): **MJ Couvillon** (PI)

Dates: 08/01/2019 – 12/01/2021

Agency: Kaeser Compressors, Inc.

Total Amount: $120,000

**Selected Recognition and Awards:**

2022 Invited speaker, *Frontiers in Bee Behavior and Ecology*, International Seminar Series

2021 Invited Keynote Speaker, North Carolina State Beekeepers Spring Meeting

2021 Invited Interview, Two Bees in a Podcast, University of Florida, Gainesville, FL

2020 Invited Keynote Speaker, Bee College. University of Florida, Gainesville, FL.

2019 Invited Keynote Speaker, Master Gardeners’ Association Meeting. Roanoke, VA.

2018 Invited Keynote Speaker, Eastern Apiculture Society. Hampton Roads, VA.

2018 Invited Interview, PolliNation Podcast, Oregon State, Corvallis, Oregon.

2012 TED Speaker (Invited), Houses of Parliament, London, England.

2009-2015 Postdoctoral Fellowship, The Nineveh Charitable Trust, University of Sussex, Brighton, England.

2007-2009 Postdoctoral Fellowship, University of Arizona, Tucson, Arizona.

**Selected Synergistic Activities since 2019:**

2011 - Present Columnist for *The Beekeepers Quarterly*

2014 - Present Associate Editor of *Insectes Sociaux*, official journal of International Union for the Study of Social Insects (IUSS)

2023 Co-organized Southern Appalachian Honeybee Research Consortium (SAHRC) Annual Meeting, Blacksburg, VA

2022 - Present Chair and Founder of Standing Committee, Virginia Tech Bee Campus USA Certification

2017 - 2022 Secretary/Treasurer of American Association of Professional Apiculturists

2019 Co-organized ESA-EB Symposium “Insect Pollinators in Human Modified Landscapes”, Blacksburg, VA

**Select Teaching Experience:**

**MJ Couvillon**. Instructor / Course Creator: Bees: Biology, Diversity, and Sustainability

ENT 2804, 3 Credit Undergraduate Lecture. Virginia Polytechnic Institute and State University, Blacksburg, VA. Fall 2021 - Present.

**Major Advisor for Completed and In-Progress Graduate Students:**

2021 MR Silliman, Completed M.S. Student

2021 TN Steele, Completed M.S. Student

2021 MC Palmersheim, Completed M.S. Student

2023 BD Ohlinger, Completed Ph.D. Student

2023 CD Campbell, Completed M.S. Student

In Progress L McHenry, Ph.D. Student

In Progress I McKellips, Ph.D. Student

In Progress L Johnson, M.S. Student

**Selected Peer-Reviewed Publications since 2019 (out of 53 since 2007)**

**MJ Couvillon,** BD Ohlinger, C Bizon, LE Johnson, LC McHenry, BE McMillan, & R Schürch (Accepted). A volatilized pyrethroid insecticide from a mosquito repelling device does not impact honey bee foraging and recruitment. *J Insect Biol*.

BD Ohlinger, **MJ Couvillon**, & R Schürch (2023). Agricultural grasslands provide forage for honey bees but only when nearby. *Agri, Ecos Environ* 359, 108722.

BD Ohlinger, R Schürch, MR Silliman, TN Steele, & **MJ Couvillon** (2022). Dance-communicated distances support nectar foraging as a supply-driven system. *Biol Letters* 18 (8), 20220155.

MC Palmersheim, R Schürch, ME O’Rourke, J Slezak, & **MJ Couvillon** (2022). If You Grow It, They Will Come: Ornamental Plants Impact the Abundance and Diversity of Pollinators and Other Flower-Visiting Insects in Gardens. *Horticulturae* 8 (11), 1068.

BD Ohlinger, R Schürch, S Durzi, PM Kietzman, MR Silliman, & **MJ Couvillon** (2022) Honey bees (Hymenoptera: Apidae) decrease foraging but not recruitment after neonicotinoid exposure. *J Insect Sci* 22(1), 16

MR Silliman, R Schürch, S Malone, SV Taylor, & **MJ Couvillon** (2022). Row crop fields provide mid-summer forage for honey bees. *Ecol and Evol* 12 (6), e8979.

TN Steele, R Schurch, & **MJ Couvillon** (2022). Apple orchards feed honey bees during, but even more so after, bloom. *Ecosphere* 13 (9), e4228.

M Carr-Markell, C Demler, **MJ Couvillon**, R Schürch, & M Spivak (2020). Do honey bee foragers recruit their nestmates to native forbs in reconstructed prairie habitats? *PLOS One* 15(2), e0228169

R Schürch, K Zwirner, BJ Yambrick, T Piraul\*, JM Wilson, & **MJ Couvillon** (2019). Dismantling Babel: Creation of a Universal Calibration for Honey Bee Waggle Dance Decoding. *Anim Behav* 150, 139-145.

**Selected Non-Peer Reviewed Publications since 2019 (out of 45 since 2005)**

**MJ Couvillon** (2023). The multi-modal extravaganza of honey bee dancing. *Curr Biol*. In Press.

**MJ Couvillon** (2023). Boosting the buzz in your backyard: Ornamental plant choice impacts the abundance and diversity of insect pollinators in gardens. *Virginia Turfgrass Journal*. In Press.

CD Campbell & **MJ Couvillon** (2022). The managed European bees that aren't honey bees: alfalfa leaf cutting bees *(Megachile rotundata*). *The Beekeepers Quarterly* 147, p. 22-24.

**MJ Couvillon** (2022). A treasured exception: apple orchards feed honey bees….but more so after the trees have finished blooming. *The Beekeepers Quarterly* 150, p. 19-22.

J Reece, **MJ Couvillon**, C Grueter, FLW Ratnieks, & CC Reyes-Aldasoro (2020). Automatic Analysis of Bees’ Waggle Dance. *bioRxiv*, 2020.11. 21.354019.

**MJ Couvillon** (2020). Communication: Honey bee dances. In: Starr, C. (eds) Encyclopedia of Social Insects. Springer, Cham. https://doi.org/10.1007/978-3-319-90306-4\_58-1