

ALLISON BISTLINE-EAST

Department of Entomology, Purdue University

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EDUCATION

- 2019 **PhD** (Environmental Science), National University of Ireland Galway
Supervisor: Professor Michael J. Gormally
Thesis: Integrative evaluation of *Tetanocera elata* (Diptera: Sciomyzidae) for slug pest management in agriculture
- 2015 **MSc** (Entomology), University of California Riverside
Supervisor: Dr Mark S. Hoddle
Thesis: Trophic interactions within a parasitoid guild (Hymenoptera: Chalcidoidea) from Pakistan in the context of Asian citrus psyllid classical biological control in California
- 2008 **BSc** (Biology), University of California Riverside
Emphasis: Ecology and evolution

RESEARCH APPOINTMENTS

- 2019 – present Postdoctoral Research Assistant. Department of Entomology, Purdue University
- 2015-2019 Postgraduate Researcher (PhD). Applied Ecology Unit, NUI Galway
- 2013-2015 Graduate Student Researcher (MSc). Department of Entomology, UC Riverside
- 2008-2013 Laboratory Technician. Department of Entomology, UC Riverside
- 2006-2008 Undergraduate Research Assistant. Department of Nematology, UC Riverside

FELLOWSHIPS, GRANTS, & AWARDS

- 2019 Purdue Postdoctoral Supplemental Travel Grant (\$650)
- 2018 Thomas Crawford Hayes Research Fund, National University of Ireland Galway (€3,468)
- 2018 Student Presentation Award (Best Poster), XI European Congress of Entomology
- 2017 Thomas Crawford Hayes Travel Fund, National University of Ireland Galway (€570)
- 2016 Ryan Institute Travel Support Scheme, Martin Ryan Institute
- 2016 Training and Travel Grant, British Ecological Society (£500)
- 2016 Thomas Crawford Hayes Research Fund, National University of Ireland Galway (€4,974)
- 2016 Government of Ireland Postgraduate Research Fellowship, Irish Research Council (€72,000)
- 2015 Student Travel Grant, Entomological Society of America
- 2015 Hardiman Research Scholarship, National University of Ireland Galway (€82,100)
- 2015 First Place Presentation, Pacific Branch Entomological Society of America Student Competition
- 2013 Dean's Distinguished Graduate Fellowship, University of California Riverside (\$67,273)

PEER-REVIEWED PUBLICATIONS

- Bistline-East, A.**, D. Burke, C.D. Williams, and M.J. Gormally. 2020. Habitat requirements of *Tetanocera elata* (Diptera: Sciomyzidae): Case study of a dry meadow in western Ireland. *Agricultural and Forest Entomology* 22: 250-262. DOI: [10.1111/afe.12378](https://doi.org/10.1111/afe.12378).
- Milosavljević I., K.A. McCalla, **A. Bistline-East**, and M.S. Hoddle. 2020. Threshold temperatures and thermal requirements of *Psyllaphycus diaphorinae* (Hymenoptera: Encyrtidae), a hyperparasitoid of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) and *Tamarixia radiata* (Hymenoptera: Eulophidae). *Florida Entomologist* 103(1): 23-31. DOI: [10.1653/024.103.0404](https://doi.org/10.1653/024.103.0404).
- Bistline-East, A.**, C.D. Williams, and M.J. Gormally. 2020. Nutritional ecology of predaceous *Tetanocera elata* (Diptera: Sciomyzidae) larvae and the physiological effects of prey utilisation. *BioControl* 65: 285-296. DOI: [10.1007/s10526-020-09997-8](https://doi.org/10.1007/s10526-020-09997-8).
- D'Ahmed, K.S., C. Stephens, **A. Bistline-East**, C.D. Williams, R.J. McDonnell, M. Carnaghi, D. ÓhUallacháin, and M.J. Gormally. 2019. Biological control of pestiferous slugs using *Tetanocera elata* (Fabricius) (Diptera: Sciomyzidae): Larval behavior and feeding on slugs exposed to *Phasmarhabditis hermaphrodita* (Schneider, 1859) (Rhabditida: Rhabditidae) with notes on adult egg-laying. *Biological Control* 135: 1-8. DOI: [10.1016/j.biocontrol.2019.04.003](https://doi.org/10.1016/j.biocontrol.2019.04.003).

5. **Bistline-East, A.**, J.G.J. Carey, A. Colton, M. Day, and M.J. Gormally. 2018. Catching flies with honey(dew): Marsh flies (Diptera: Sciomyzidae) utilize sugary secretions for high-carbohydrate diets. *Environmental Entomology* 47(6): 1632-1641. DOI: [10.1093/ee/nvy155](https://doi.org/10.1093/ee/nvy155).
6. Irvin, N.A., **A. Bistline-East**, and M.S. Hoddle. 2016. The effect of an irrigated buckwheat and vetch cover crop on grape yield, berry quality, vine vigor, and abundance of beneficial insects and grape pests in California. *Biological Control* 93: 72-83. DOI: [10.1016/j.biocontrol.2015.11.009](https://doi.org/10.1016/j.biocontrol.2015.11.009).
7. **Bistline-East, A.** and M.S. Hoddle. 2015. Biology of *Psyllaphycus diaphorinae* (Hymenoptera: Encyrtidae), a hyperparasitoid of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) and *Tamarixia radiata* (Hymenoptera: Eulophidae). *Annals of the Entomological Society of America* 109(1): 22-28. DOI: [10.1093/aesa/sav113](https://doi.org/10.1093/aesa/sav113).
8. **Bistline-East, A.**, R. Pandey, M. Kececi, and M.S. Hoddle. 2015. Host range testing of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) for use in classical biological control of *Diaphorina citri* (Hemiptera: Liviidae) in California. *Journal of Economic Entomology* 108(3): 940-950. DOI: [10.1093/jee/tov020](https://doi.org/10.1093/jee/tov020).
9. **Bistline-East, A.** and M.S. Hoddle. 2014. *Chartocerus* sp. (Hymenoptera: Signiphoridae) and *Pachyneuron crassiculme* (Hymenoptera: Pteromalidae) are obligate hyperparasitoids of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) and possibly *Tamarixia radiata* (Hymenoptera: Eulophidae). *Florida Entomologist* 97(2): 562-566. DOI: [10.1653/024.097.0230](https://doi.org/10.1653/024.097.0230).

INDUSTRY & OUTREACH PUBLICATIONS

1. **Bistline-East, A.** 11 Jan 2016. *Psyllaphycus diaphorinae*: Another natural enemy from Pakistan for ACP biocontrol? Center for Invasive Species Research blog. <http://cistr.ucr.edu/blog/psyllids/psyllaphycus-diaphorinae-another-natural-enemy-from-pakistan-for-acp-biocontrol/>.
2. Hoddle, M.S., **A. Bistline-East**, C.D. Hoddle, and M. Lewis. 2015. Enlisting a second natural enemy species for ACP biocontrol. *Citrograph* 6(2): 58-63.

INVITED SEMINARS & TALKS

1. **Bistline-East, A.** Perspectives in biological control approaches and application. *Symposium: Biological Control in Agroecosystems and Natural Areas: Highlighting the Work of a New Generation of Biocontrol Scientists*. Annual Meeting, North-Central/Southwest Branch Entomological Society of America (virtual). 5 May 2020.
2. **Bistline-East, A.** Integrative evaluation of *Tetanocera elata* (Diptera: Sciomyzidae) for slug pest management in agriculture. Department of Entomology Seminar Series, Purdue University, 17 Oct 2019.

CONFERENCE PARTICIPATION

1. **Bistline-East, A.** and M.J. Gormally. Molluscs on the menu: Predation behaviour and preference of the slug-killing fly *Tetanocera elata* (Diptera: Sciomyzidae). 2nd Ecology & Evolution Ireland Conference. National University of Ireland Galway, Ireland. 10 – 12 Jan 2019.
2. **Bistline-East, A.**, A. Volpato, and M.J. Gormally. Fitness factors: Effect of diet and cage structure on longevity and fecundity of adult *Tetanocera elata* (Diptera: Sciomyzidae). 66th Annual Meeting, Entomological Society of America (jointly with ESC and ESBC). Vancouver, BC, Canada. 11-14 November 2018. (virtual poster)
3. **Bistline-East, A.** and M.J. Gormally. Molluscs on the menu: Prey preference and predating behaviours of a slug-killing fly. XI European Congress of Entomology. Naples, Italy. 2-6 July 2018. (poster)
4. **Bistline-East, A.**, J.G.J. Carey, A. Colton, D. Naughton, and M.J. Gormally. Catching flies with honey(dew): Determination of sugar-rich dietary components of marsh flies (Diptera: Sciomyzidae), potential biocontrol agents of pestiferous molluscs. ENTO'17. Newcastle University, Newcastle upon Tyne, UK. 12-14 Nov 2017.
5. **Bistline-East, A.** and M.J. Gormally. Habitat surveys for *Tetanocera elata* (Diptera: Sciomyzidae) to develop sustainable slug pest management in Ireland. 1st Ecology and Evolution Ireland Conference. Institute of Technology Sligo, Ireland. 24-26 Nov 2016.

6. **Bistline-East, A.** and M.J. Gormally. Field collections and habitat surveys of *Tetanocera elata* (Diptera: Sciomyzidae) to develop sustainable slug pest management in Ireland. XXV International Congress of Entomology. Orlando, Florida, USA. 25-30 Sept 2016.
7. **Bistline-East, A.** and M.S. Hoddle. Host range evaluation of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) for biological control of Asian citrus psyllid in California. Colloquium for Animal and Plant Ecological Research. National University of Ireland, Galway, Ireland. 4 Dec 2015.
8. **Bistline-East, A.** and M.S. Hoddle. *Psyllaphycus diaphorinae*: a new enemy for ACP biocontrol? Colloquium for Animal and Plant Ecological Research. National University of Ireland, Galway, Ireland. 4 Dec 2015. (poster)
9. **Bistline-East, A.** and M.S. Hoddle. Host range evaluation of *Diaphorencyrtus aligarhensis* (Hymenoptera: Encyrtidae) for biological control of Asian citrus psyllid in California. 99th Annual Meeting, Pacific Branch Entomological Society of America. Coeur d'Alene, Idaho, USA. 12-15 Apr 2015.
10. **Bistline-East, A.** and M.S. Hoddle. Is *Psyllaphycus diaphorinae* a primary parasitoid of Asian citrus psyllid? Citrus Research Board Biocontrol Task Force Meeting, Riverside, California, USA. 4 Dec 2014.
11. **Bistline-East, A.** and M.S. Hoddle. Assassins Unmasked: Revealing the biology of the hyperparasitoid *Psyllaphycus diaphorinae*. 62nd Annual Meeting, Entomological Society of America. Portland, Oregon, USA. 16-19 Nov 2014.
12. **Bistline-East, A.** and M.S. Hoddle. Determining the host range of *Diaphorencyrtus aligarhensis*, a parasitoid of Asian citrus psyllid. University of California, Riverside Entomology Department Student Seminar Day. Riverside, California, USA. 25 Sept 2014.
13. **Bistline-East, A.** and M.S. Hoddle. Hyper Alert: Confirming two Pakistani wasps are hyperparasitoids of valuable ACP biological control agents. 98th Annual Meeting, Pacific Branch Entomological Society of America. Tucson, Arizona, USA. 6-9 Apr 2014. (poster)
14. **Bistline, A.** and M.S. Hoddle. *Chartocerus* sp. (Hymenoptera: Signiphoridae) and *Pachyneuron crassiculme* (Hymenoptera: Pteromalidae): obligate hyperparasitoids within the *Diaphorina citri* (Hemiptera: Liviidae) system in Pakistan. University of California, Riverside Entomology Department Student Seminar Day. Riverside, California, USA. 19 Sept 2013.

SERVICE & OUTREACH

2018-present	Skype a Scientist
June 2019	Speaker, Soapbox Science Galway
June 2019	Radio interview, RTÉ 1 "CountryWide" (https://bit.ly/3bY3bCl)
2019	Galway Event Coordinator, Pint of Science Ireland
April 2019	Speaker, Bright Club Galway
Sept 2018	Speaker, PubhD Galway
Sept 2018	"Insects and agriculture" farm talk (invited), Beechlawn Organic Farm Open Day, Ballinasloe, IE
2018	Galway Regional Coordinator, Pint of Science Ireland
2017-2018	Field Based Research cluster meeting co-curator, NUI Galway
Sept 2017	"Slugs & the flies that eat them" outreach seminar (invited), Go Wild! Galway
July 2017	Support and logistics volunteer, Soapbox Science (Galway)
2016-2019	Student research mentor (undergraduate and MSc), Environmental Science, NUI Galway
2016-2017	Demonstrator, "Science Experience!" NUIG Open Day events, Microbiology, NUI Galway
Dec 2015	Organising Committee member, Colloquium for Animal and Plant Ecological Research NUIG
Apr 2015	Co-chair, 1 st Annual Riverside Insect Fair
Jan 2015	Judge, Riverside Unified School District Science Fair
2013-2015	Public education outreach volunteer, UCR Entomology Graduate Student Association

TEACHING EXPERIENCE

Fall 2018	Lecturer. Ecological Survey Techniques, Environmental Science (BSc), NUI Galway
Spring 2018	Demonstrator. Sustainable Resource Management (MSc), NUI Galway
2016-2018	Lecturer. Biology, Access Programme, NUI Galway
2015-2019	Demonstrator. Environmental Science (BSc), School of Natural Sciences, NUI Galway
Fall 2014	Teaching Assistant. General Entomology, Department of Entomology, UC Riverside

STUDENT MENTORSHIP

Bachelor of Science, capstone project co-advisor, Purdue University

2020 William A. Le Van (Entomology), Thesis: "Arthropod biodiversity in Indiana Conservation Reserve Program habitats"

Master of Science (Sustainable Resource Management), thesis co-advisor, NUI Galway

2017 Daniel Burke, Thesis: "Determining the habitat requirements of *Tetanocera elata* (Diptera: Sciomyzidae) to develop self-sustaining biological control for pestiferous slugs"

2016 Andrew Colton, Thesis: "Feeding habits and dietary preferences of Sciomyzidae (Diptera) with respect to mass rearing for the purpose of biocontrol"

Bachelor of Science, honours thesis co-advisor, NUI Galway

2018 Jonathan Fearon (Environmental Science), Thesis: "A study of dispersal patterns of insects in an organic Irish agroecosystem"

2018 Andrew Prendergast (Environmental Science), Thesis: "Assessing the factors that influence invertebrate community structure, with a focus on the slug-killing fly *Tetanocera elata* (Diptera: Sciomyzidae)"

2017 Paul Lund (Zoology), Thesis: "Observation of the feeding behaviour of third instar larva of *Tetanocera elata* on *Deroceas reticulatum* to analyse patterns and predatory techniques"

PROFESSIONAL DEVELOPMENT & CERTIFICATIONS

- » Mental Health First Aid Certification, Purdue University (February 2020)
- » Trans* Inclusivity Training, Purdue University (November 2019)
- » "Presenting Research with Confidence" Hugh Kearns seminar, NUI Galway (February 2019)
- » Fieldwork First Aid certification, NUI Galway (November 2018)
- » The Diverse Classroom and Inclusive Teaching Practice workshop, NUI Galway (Jan 2018)
- » Research Integrity training, NUI Galway Career Support & Development Seminar Series (May 2017)
- » Teaching & Learning certification, NUI Galway (April 2017)
- » Invasive Non-native Species certification, Great Britain Non-native Species Secretariat (February 2017)
- » "Invasive non-native species and the law, regulations and policy in the UK and Ireland – a keep out of jail webinar", CIEEM online seminar (Jan 2017)
- » Code School R online programming course (<https://www.codeschool.com/courses/try-r>) (Dec 2015)
- » Process Oriented Guided Inquiry Learning (POGIL) Instructor Development Workshop Certified (May 2015)

PROFESSIONAL AFFILIATIONS

- » Entomological Society of America
- » British Ecological Society
- » Irish Ecological Association

TECHNICAL SKILLS

- » Project design & management
- » Scientific writing
- » Mentoring & leadership
- » Excellent public speaking & presenting skills
- » Expert proficiency with MS Office
- » Ecological sampling and analysis techniques
- » Biological control design and implementation
- » MAPS bird banding & mist netting
- » Genetic sequencing, editing, & annotation
- » Statistical analysis in R (R Studio)
- » ArcGIS and habitat mapping
- » EthoVision XI video capture & analysis