Curriculum Vitae

George E. Heimpel
Professor

Department of Entomology
University of Minnesota
1980 Folwell Ave.
St. Paul, MN 55108

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(612) 625-7055 (laboratory)
FAX: (612) 625-5299
Email: heimp001@umn.edu

Education

B.S. 1988. Conservation and Resource Studies, University of California, Berkeley.
M.S. 1991. Entomology and Applied Ecology, University of Delaware, Newark.
Ph.D. 1995. Entomology, University of California, Davis.

Professional Experience

1997-present. Assistant/Associate (2003)/Full (2010) Professor, Department of Entomology, University of Minnesota, St. Paul.
1995-1997 Post-doctoral Fellow, Department of Entomology, University of Wisconsin, Madison.
1991-1995 Research Assistant, Department of Entomology, University of California, Davis.
1989-1991 Research Assistant, Department of Entomology and Applied Ecology, University of Delaware, Newark.
1986-1987 Laboratory Assistant, Department of Entomology, University of California, Berkeley.

Teaching Experience:

University of Minnesota:

1999 - present. Dept. of Entomology, Univ. of Minnesota graduate/undergraduate course: Biological Control of Insects and Weeds
2002 - 2016. Dept. of Entomology, Univ. of Minnesota undergraduate/graduate course: Insect Behavior.
2019 - present. Dept. of Entomology, Univ. of Minnesota undergraduate course: The Influence of Insects on Human History and Civilization.
2020. Department of Environmental Science, Policy and Management (ESPM): Environmental Sciences: Integrated Problem Solving.

Awards & Honors

1987. Horace Albright Conservation Scholarship, University of California, Berkeley.
1996. John Kinsella College of Agriculture and Environmental College dissertation excellence award. University of California, Davis.
1997. U.S.D.A. Post-doctoral fellowship
1997. N.S.F. Post-doctoral fellowship
2001 – 2003. McKnight Land-Grant Professorship, University of Minnesota
2007. Presidential Citation for Outstanding Achievement; University of Delaware.
2009. Named Associate Fellow of the Institute on the Environment, University of Minnesota
2010. Named Resident Fellow of the Institute on the Environment, Univ. of Minn.
2011. Named Member: Faculty of 1,000; Population Biology section.
2015. Named Distinguished McKnight University Professor; University of Minnesota.
2017. Elected President of the International Organization of Biological Control, Global Branch
2017. Presented the 25th Annual H.R. McCarthy Pest Management Lecture at Simon Fraser University, Vancouver, Canada
2017. Faculty Award for Mentorship in Entomology (FAME) award; presented by Frenatae, Dept. of Entomology, University of Minnesota
2017. Named Permanent Research Associate of the *Instituto Nacional de Biodiversidad, Ecuador*.
2020. Awarded Visiting Professorship at the University of Catania, Italy (deferred due to COVID Pandemic).

Graduate Appointments in other Departments

Ecology, Evolution and Behavior (U of MN)
Conservation Biology (U of MN)
Laval University, Quebec City, Canada

Professional Organizations

British Ecological Society
Ecological Society of America
Entomological Society of America
International Organization for Biological Control
International Society of Hymenopterists

Editorial Services

1. **Editorial Boards, etc.**

Biological Control (Academic Press)
- 2001 – 2009: editorial board
- 2004 - 2009: Editor

Annals of the Entomological Society of America
- 2002 – 2004: subject editor

Bulletin of Entomological Research (CABI Press, UK)
- 2002 – 2003: subject editor

Oecologia (Springer)
- 2011 – present: subject editor

Current Opinion in Insect Science
- 2015 – 2016: Guest editor (with Paul J. Ode) for a special issue on 'Parasitoids, Parasites and Biological Control'.

Entomologia Experimentalis et Applicata
- 2018 – present: Editorial Board Member

BioControl
- 2019 – present: Editorial Board Member

Biological Invasions
- 2020 – present: Subject Editor

2. Manuscript review

Journals:

Acta Parasitologica; Agriculture, Ecosystems & Environment; Agronomy; American Naturalist; Animal Behaviour; Annals of the Entomological Society of America; Australian Journal of Entomology; Apidologie; Basic and Applied Ecology; Behavioral Ecology; Behavioral Ecology and Sociobiology; BioEnergy Research; BioControl; Biocontrol Science and Technology; Biological Conservation; Biological Control; Biological Conservation; Biological Invasions; Biological Journal of the Linnaean Society; Biology Letters; BMC Ecology; BMC Evolutionary Biology; Bulletin of Entomological Research; Canadian Journal of Plant Science; Communications Biology; Comparative Biochemistry and Physiology; Crop Protection; Current Opinion in Insect Science; Current Zoology; Diversity and Distributions; Ecological Economics; Ecological Entomology; Ecological Modelling; Ecology; Ecology Letters; Environmental Entomology; Entomologia Experimentalis et Applicata; Entomologica Fennica; Entomological Science; Entomophaga; European Journal of Entomology; Evolution; Evolutionary Applications; Evolutionary Ecology; Functional Ecology; Global Ecology and Conservation; Great Lakes Entomologist; Heredity; Insect Conservation & Diversity; Insects; International Journal of Ecology and Environmental Science; International Journal of Pest Management; Israel Journal of Entomology; Journal of Animal Ecology; Journal of Applied Ecology; Journal of Applied Entomology; Journal of Economic Entomology; Journal of Entomological Science; Journal of Evolutionary Biology, Journal of Experimental Biology; Journal of Insect Behavior; Journal of Insect Physiology; Journal of Insect Science; Journal of Medical Entomology; Journal of Pest Science; Journal of the Kansas Entomological Society; Journal of Theoretical Biology; Methods in Ecology and Evolution; Microbial Ecology; Molecular Ecology; Nature Communications; Naturwissenschaften; Neotropical Entomology; Oecologia; Oikos; Parasitology Research; PeerJ; Pest Management Science; Physiological Entomology; Plant-Insect Interactions; PLoS Biology; PLoS One; PNAS; Proceedings of the Hawaiian Entomological Society; Proceedings of the Royal Society of London, Series B; Science; Subtropical Plant Science Journal; Zoologischer Anzeiger.

3. Grant Proposal Review

Granting Agencies:

CSREES Tropical and sub-tropical agricultural research program
Kentucky Science & Engineering Foundation
National Geographic Society
N.E.R.C. Small Research Grants Program (U.K.)
N.S.F. Competitive Grants program
    Animal Behavior panel
    Ecology panel
    Ecological Studies panel
U.S.D.A. Competitive Grants Program
    Biological Control panel
    Entomology panel
    Biologically-based Pest Management panel
    Plant Production and Protection – Biology panel
United States- Israel Binational Agricultural Research and Development (BARD) Fund
United States-Israel Binational Science Foundation
Center for Community Genetics, University of Minnesota
Agriculture and Agri-Food Canada Research Proposals
Netherlands Organization for Scientific Research

4. Grant Proposal Panels

2004 USDA – Small Business Innovative Research – Plant Production and Protection – Biology.
2007 USDA NRI – Panel member: Entomology and Nematology Population and Organismal Biology
2008 USDA NRI – Panel member: Entomology and Nematology Population and Organismal Biology
2011 USDA NIFA AFRI – Panel Manager: Insects and Nematodes – Organismal Biology
2018 USDA NIFA AFRI - Pests and Beneficial Insects Panel - Ecology

Student and Post-doctoral Advising

Summary:

- *3 visiting scholars*: R. Poland (previously Ware), N. Desneux, A. Tena

- *21 current past or current post-docs*: S. Acheampong, R. Boulton, M.K. Asplen, A. Biondi, M. Bulgarella, J.G. De Boer, N. Desneux, H.Y. Fadamiro, R. Koch, D.M. Olson, V. Osuji, J. Peterson, M. Plecas, P. Rueda-Cediel, Z. Sezen, C. Stenoien, L.A. Weiser,

J.J. Weis, K. Welch, Z. Wu, K.A.G. Wyckhuys

- *21 current or past graduate students advised or co-advised*: M. Carter, J.M. Chacon, C. Dieckhoff, J.S. Dregni, A-E. Gagnon, A. Gooding, H. Gray, K. Gruber, T. Heidel, M. Hoogendoorn, C. Hsu, M. Kaiser, J. Kaser, J.C. Lee, J.G. Lundgren, M. Marek-Spartz, E. Middleton, J. Miksanek, E.K. Mohl, N. Padowski, I. Ramirez

Details:

Visiting Scholars:

Dr. Remy Poland (previously Remy Ware) (2009)
- Ph.D. Cambridge University, U.K.
- Recipient: Darwin Researcher Exchange Award

Dr. Nicolas Desneux (2012, 2015)
- Ph.D. Paris, France
- Laboratory Director, INRA, Antibes, France

Dr. Alejandro Tena (2015, 2017, 2019)
-Research Scientist: Instituto Valenciano de Investigaciones Agrarias, IVIA, Spain

Post-doctoral:

Past:

Dr. Dawn Olson (1998)
- Ph.D. Univ. of Minnesota
- Most recent position: Research Scientist at USDA-ARS in Tifton, Georgia (retired)

Dr. Henry Fadamiro (1998-1999)
- Ph.D. Oxford University, U.K. (Rhodes scholar)
- Current position: Professor of Entomology, Auburn University

Dr. Vivian Osuji (2000 – 2002)
- Ph.D. International Center of Insect Physiology and Ecology, Kenya

Dr. Laura Weiser (2002 – 2003)
- Ph.D. Iowa State University
- Current position: Associate Professor of Biology – Texas A&M University, Central Texas; Killeen, TX.

Dr. Zhishan Wu (1999 - 2004)
- Ph.D. Fujian Agric. Univ., China.

- Most recent position: Quarantine Officer, Minnesota Department of Agriculture, St. Paul, MN

Dr. Susanna Acheampong (2004 – 2005)
- Ph.D. Washington State University
- Current Position: Agri-Food Canada, Agassiz, British Columbia, Canada

Dr. Jetske De Boer (2004 – 2006)
- Ph.D. Wageningen University, The Netherlands
- Current position: Research Fellow, Wageningen University, The Netherlands

Dr. Kris Wyckhuys (2005 - 2007)
- Ph.D. Purdue University
- Current position: Senior Researcher, CIAT, Vietnam.

Dr. Robert Koch (2005 – 2006)
- Ph.D. University of Minnesota
- Current Position: Assistant Professor of Entomology, University of Minnesota

Dr. Zeynep Sezen (2006 – 2008, 2011)
- Ph.D. Penn State University

Dr. Nicolas Desneux (2006-2007)
- Ph.D., Paris, France
- Current position: Research Director, INRA, France

Dr. Mark Asplen (2007-2012)
- Ph.D. University of Arizona
- Recipient: Outstanding Post-Doctoral Scholar Award – University of Minnesota (2009)
- Current position: Associate Professor, Metropolitan State University, St. Paul, MN.

Dr. Julie Peterson (2012 - 2013)
- Ph.D. University of Kentucky 2012
- Current Position: Associate Professor, University of Nebraska, North Platte, NE.

Dr. Antonio Biondi (2013)
- Ph.D. University of Catania, Italy 2011
- Current position: Assistant Professor, University of Catania, Italy

Dr. Milan Plecas (2014-2015)
- Ph.D. Belgrade University, Serbia (2013)
- Current position: Lecturer, Belgrade University, Serbia

Dr. Mariana Bulgarella (2014 – 2015)

- Ph.D. University of Alaska, Fairbanks (2010)
- Post-doc, Massey University, New Zealand
- Current position: Senior Researcher, Victoria University of Wellington, New Zealand

Dr. Jerome Weis (2014-2017)
- Ph.D. – Yale University (2014).
- Current position: Visiting Scholar, Milwaukee Natural History Museum, Milwaukee, WI, USA and Lecturer, Marquette University.

Dr. Rebecca Boulton (2016 - 2017)
- Ph.D. – University of St. Andrews, Scotland (2016)
- Current position: Post-doc at Exeter University, U.K.

Dr. Kelton Welch (2016 – 2018)
- Ph.D. – University of Kentucky (2013)
- Post-doc: USDA, Brookings S.D.
- Current Position: Research Scientist, Ecdysis Foundation

Dr. Carl Stenoien (2018 – 2020)
- Ph.D. – University of Minnesota, 2017
- Current Position: Research Scientist, Minnesota Pollution Control Agency

Current:

Dr. Pamela Rueda-Cediel (2020 – present)
- Ph.D. – University of California, Riverside, 2015
- Post-doc: University of Minnesota: 2017 - 2020

Graduate Students:

Past:

Dr. Jonathan Lundgren, M.S. 2000 - Entomology
- B.S. University of Minnesota
- **Thesis title:** *Trichogramma* and Biological Control of Cruciferous Lepidoptera.
- PhD at University of Illinois
- Current position: Director, Ecydysis Foundation.

Dr. Marlijn Hoogendoorn, Ph.D. 2003 - Entomology
- B.S. Leiden University, The Netherlands
- **Dissertation title:** Factors influencing the abundance and predation of two coccinellid species in an agricultural system: the influence of vegetational diversity and direct and indirect interactions between species.
- Current position: Forensic Scientist, Nuclear DNA section, Bureau of Criminal Apprehension, St. Paul, MN

Dr. Jana Lee, Ph.D. 2004 - Entomology
- B.S. University of California, Berkeley
- M.S. Michigan State University
- **Dissertation title:** Diversifying agroecosystems with floral habitat to improve biological control
- Recipient: Univ. of Minnesota Graduate School Fellowship (1 year)
- Recipient: Louise Dohsdal Fellowship (Univ. of Minnesota)
- Recipient: Univ. of Minnesota Doctoral Dissertation Fellowship
- Current Position: USDA-ARS research scientist, Corvallis, OR.

Dr. Cynthia Hsu, Ph.D. 2006 - Entomology
- B.S. University of California, Davis
- M.S. Cornell University
- **Dissertation title:** Spatial distribution of the European corn borer, *Ostrinia nubilalis* (Hübner) (Lepidoptera: Crambidae), and the response of the specialist parasitoid *Macrocentrus grandii* Goidanich (Hymenoptera: Braconidae) to host heterogeneity in the field
- Recipient: Univ. of Minnesota Graduate School Fellowship (1 year)
- Recipient: Center for Community Genetics 1-year Fellowship
- Recipient: Univ. of Minnesota Doctoral Dissertation Fellowship
- Current position: post-doctoral researcher, Cornell University.

Dr. Jeremy Chacon, Ph.D. 2010 - Entomology
- B. S. University of Wisconsin, Madison
- Recipient: EPA STAR Fellowship (3 years complete funding)
- Recipient: Univ. of Minnesota Doctoral Dissertation Fellowship
- **Dissertation title:** Intraguild predator interference of a classical biological agent of the soybean aphid
- Current position: Post-doc Univ. of Minnesota

Dr. Annie-Eve Gagnon, Ph.D. 2010; co-advised with Prof. Jacques Brodeur, Montreal University)
- B.S. Laval University, Quebec
- **Dissertation title:** Detection of intraguild predation between coccinellids using molecular analyses of gut contents and its impact on the biological control of the soybean aphid
- Current Position: Project director: Agriculture and Agri-Food Canada

Dr. Christine Dieckhoff, Ph.D. 2011 - Entomology
- M.S. University of Bremen, Germany
- Recipient: DDF Fellowship, U of M Graduate School
- **Dissertation title:** Host acceptance behavior in the soybean aphid parasitoid *Bindoxys communis* (Hymenoptera: Braconidae) – the role of physiological state in biological control.
- Current position: Post-doc, USDA ARS

Dr. Thelma Heidel, Ph.D., 2012 (Entomology; co-advised with D.W. Ragsdale)
- B.S. University of Wisconsin, Madison
- M.S. Purdue University
- Recipient: Univ. of Minnesota Graduate School Fellowship (3 years)
- Recipient: NSF-IGERT Fellowship (2 years)
- **Dissertation title:** Compatibility of soybean aphid integrated pest management strategies
- Current position: Post-doc, Iowa State University

Ms. Megan Carter, M.S., 2013 - Entomology
- B.S. Earlham College, Indiana
- **Thesis title:** Functional response and the effects of insecticidal seed treatment on the soybean aphid parasitoid, *Binodoxys communis*.
- Current position: Cooperative Extension, Maine

Dr. Emily Mohl, Ph.D. 2014 – Ecology, Evolution & Behavior (EEB)
- B.S. Grinnell University.
- Recipient: Univ. of Minnesota Graduate School Fellowship (3 years)
- Recipient: NSF-IGERT Fellowship (2 years)
- **Dissertation title:** The multi-trophic context of plant defense: ecological and evolutionary implication of variation in milkweeds.
- Current Position: Assistant Prof. of Biology/Education at St. Olaf College, MN.

Mr. Nicholas Padowski. (2013 – 2016) - Entomology
- B.S., M.S. SUNY EFS
(resigned January 2016)

Dr. Joe Kaser, Ph.D., 2016 – Entomology
- B.S. Univ. of Wisconsin, Madison
- M.S. Oregon State University
- **Dissertation title**: Risk and efficacy in biological control: an evaluation of the aphid parasitoid *Aphelinus certus* in North America
- Recipient: NSF-IGERT Fellowship (2 years)
- Recipient: Mn-Drive Fellowship (1 year)
- Recipient: U of MN Doctoral Dissertation Fellowship (1 year)
- Current position: Post-doc, U.S.D.A. ARS

Dr. Matthew Kaiser, Ph.D., 2016 – Ecology, Evolution & Behavior (EEB)
- B.S. University of Minnesota
- **Dissertation Title**: Transgenerational fecundity compensation and post-parasitism reproduction by aphids in response to their parasitoids
- Recipient: NSF-IGERT Fellowship (2 years)
- Current position: Invasive species officer, California Dept. of Food and Agriculture, Sacramento, CA, USA

Mr. Ismael Ramirez, M.S., 2018 – Entomology
- B.S. Brigham Young University

- Volunteer: Charles Darwin Foundation, Galapagos, Ecuador
- **Thesis title**: *Philornis downsi* interactions with its host in the introduced range and its parasitoid in its native range.
- Current position: Ph.D. student, University of Minnesota Dept. of Entomology

Dr. Hannah Gray, Ph.D., 2020 – Entomology/co-advised with D.A. Andow
- B.S. Kalamazoo College
- Recipient: U.S. Borlaug Fellowship in Global Food Security
- Recipient: U of MN Interdisciplinary Center for the Study of Global Change
- Recipient: U.S. E.P.A. STAR Fellowship
- **Thesis title:** Arthropod Predation in *Brassica* Agroecosystems: Effects of Latitude, Community Composition, and Diet Breadth
- Current position: Post-doc, University of Texas, Austin

Dr. James Miksanek, Ph.D., 2020 – Entomology
- B.S. St. Cloud State University
- Researcher, Mayo Clinic, Rochester, MN
- Recipient: Bell Museum Natural History Fellowship
- Recipient: Harrison Hueg PhD Fellowship
- **Dissertation title**: Population ecology of Aphelinus certus, an adventive parasitoid of soybean aphid in North America, with implications for biological control
- Current position: Instructor, Metro State University, St. Paul, MN, USA

Dr. Eric Middleton, Ph.D., 2020 – Entomology/co-advised with Ian McRae
- B.S. University of Utah
- **Dissertation title**: Wildflower plantings in commercial agroecosystem: the effects of pollinators, predators, herbivores, and floral communitites
- Current Position: Post-doc, University of Missouri, St. Louis, USA

Mr. Jonathan Dregni, M.S., 2020 – Entomology
- B.S. University of CA, Berkeley.
- **Thesis title**: Effects of neonicotinoid seed treatments on Aphelinus parasitoids of the soybean aphid, *Aphis glycines*
- Current Position: Laboratory Technician, University of Minnesota

Present

Ms. Mary Marek-Spartz, Ph.D. (2017 – present) – Entomology
- B.S. University of Minnesota
- M.S. Global Information Systems, St. Mary's University, MN
- Expected graduation: Summer 2021

Mr. Ismael Ramirez, Ph.D. (2019 – present) – Entomology
- B.S. Brigham Young University
- M.S. University of Minnesota, Entomology

- Volunteer: Charles Darwin Foundation, Galapagos, Ecuador
- Recipient: Entomology Excellence Fellowship
- Recipient: Bell Museum of Natural History Summer Fellowship
- Expected Graduation: Spring 2023

Ms. Alyssa Gooding, Ph.D. (2020 – present) – Ecology, Evolution & Behavior (EEB)
- B.S. Buffalo University, NY, USA
- Recipient: CFANS Diversity Fellowship
- Expected Graduation: Spring 2025

Visiting Graduate Students

Mr. Camille Delebeque (2007)
- B.S. Paris Institute for Life, Food & Environmental Sciences
- Ph.D. Harvard University, Biology

Ms. Ying Zhang (2008)
- PhD Chinese Plant Protection Institute, Beijing 2010.

Ms. Clara Malloines (2012)
- Ph.D. student, University of Texas

Mr. Nicola Bodino (2015)
- University of Torino, Italy

Ms. Michela Matos (2015)
- Visoca University, Brazil

Ms. Roxanne Sage (2015)
- University of Quebec in Rimouski, Canada.

Mr. Matthias Senft (2015)
- University of Munich, Germany

Ms. Lucie Monticelli (2016, 2017)
- University of Nice, France

Mr. Michele Ricupero (2017)
- University of Catania, Italy

Mr. Maxime Damien (2017)
- University of Rennes, France

Mr. Miguel Calvo Agudo (2019)
- Valencian Institute of Agricultural Research, Spain

Undergraduate Students & non-thesis graduates engaged in independent research:

Ms. Katy Vogt, Senior honors thesis (1998 – 1999).
- Honors thesis title: Temporal localization of male-killing flavobacteria in the ladybird beetle *Coleomegilla maculata* (Coleoptera: Coccinellidae).
- B.S.: Neurosciences

Ms. Markeeta Keyes, McNair Minorities scholar (1999)

Mr. Seth Bomgren, Senior directed research (1999 – 2000). B.S.: Molecular & Cell Biology.

Ms. Dana Gardner, Master's of Agriculture student

- 1 unit of independent research (2001)
Ms. Kara Ferguson, UROP fellowship (2001)
Ms. Carmen Gavin, UROP fellowship (2003)
Mr. Jeremy Kobany, UROP fellowship (2004)
Mr. Daniel Barta, UROP fellowship (2006)
Ms. Nancy Fares, 3 Units of directed research (2007)
Ms. Virginia Howick, 7 Units of directed research (2008-2009)
Mr. Simon Lueth, 3 Units of directed research (2009)
Ms. Sarah Gunderson, UROP fellowship (2009)
Ms. Rachel Ward, LSSURP awardee from Concordia College, Moorehead, MN (2009)
Mr. Michael Oxendine, LSSURP awardee from South Carolina (2010)
Mr. Emmanuel Santa Martinez LSSURP awardee from Puerto Rico (2010)
Ms. Ashlee Lang, 3 Units of directed research (2010)
Mr. Evan Baeten, UROP fellowship (2011)
Mr. Logan Fees, UROP fellowship (2011)
Ms. Mary Pattison, UROP fellowship (2012)
Ms. Mattea Allert, LSSURP awardee from U. of Wis (2012)
Mr. Erik Swanson, LSSURP awardee from Wheaton College (2012)
Mr. Andrew Cumming, Independent Research, (2014)
Ms. Taylor Pitel, Independent Research (2014-2015)
Ms. Paola Lahuatte, Intern from Charles Darwin Center, Ecuador (2015)
Ms. Symone McLain, UROP fellowship (2016)
Mr. Alex Dutchin, 3 Units of directed research (2019)
Ms. Sierra Baum, 3 Units of directed research (writing intensive) (2019, 2020)

Membership on grad student committees at U. of M.
(not including students advised by myself)

Battalden, Rebecca Ph.D., Ph.D. 2011, EEB, Advisor: K. Oberhauser
Carillo, Mario; Ph.D. 2005, Entomology, Advisor: C. Cannon
Da Costa, Michelle; Ph.D. 2007, Entomology, Advisor: S. Weller
De Anda, Alma M.S., 2009, EEB, Advisor : K. Oberhauser
Eckberg, James; Ph.D. 2012-2015, Agronomy & Plant Genetics; Advisor: D. Wyse
Fahrner, Samuel; M.S. 2014, Entomology; Advisor: B. Aukema
Fahrner, Samuel; Ph.D. 2014-2018, Entomology; Advisor: B. Aukema
Fricke, Laura; Ph.D. 2021 – present, Entomology; Advisor: A. Lindsey
Flor, Lina; Ph.D. 2006, Entomology; Advisors: V. Krischik & T. Kurtti
Gebauer, Alastacia; M.S. 2015-2016, Entomology; Advisor: B. Aukema
Harmon, Jason; Ph.D. 2003; Entomology; Advisor: D. Andow
Hladilek, Erin; M.S. 2003, Entomology; Advisor: D. AndowOlr
Hu, Yang; Ph.D. 2008, Entomology; Advisor: D. Andow
Jez, Kathy; M.S. 2005, Entomology; Advisor: M. Spivak
Koch, Karrie; Ph.D. Ph.D. 2011, Entomology; Advisor: D. Ragsdale
Koch, Robert; Ph.D. 2005, Entomology; Advisor: W. Hutchison
Kosmala, Margaret; Ph.D. 2013; EEB; Advisor: D. Tilman
Kota, Mounica; Ph.D. 2019 – present; EEB; Advisor: M. Zuk

Krueger, Kaitlin; M.S. 2013, Entomology; Advisor: I. MacRae
Martinez, Jeannette; M.S. 2004, EEB; Advisor: C. Neuhauser
McCornack, Brian; Ph.D. 2007, Entomology; Advisor: D. Ragsdale
Melotto, Gloria; M.S. 2021 – present, Entomology; Advisor: R. Koch
Menken, Michelle; Ph.D. 2006; Agronomy and Plant Genetics; Advisor: J. Orf
Moe, Annika; Ph.D. 2011; EEB; Advisor: G. Weiblen
Nail, Kelly, Ph.D. 2011-2016, Conservation Biology; Advisor: K. Oberhauser
Ng, Melody; Ph.D. 1999 – 2003, EEB; Advisor: D. Andow
Olzer, Rachel; Ph.D. 2021, EEB; Advisor: Marlene Zuk
Prescott, Kristina; Ph.D. 2007 – 2015, EEB; Advisor: D. Andow
Rogers, Mary; M.S. 2008; Horticulture; Advisor: V. Krischik
Roth, Alex; Ph.D. 2012-2015; Conservation Biology; Advisor: L. Frehlich
Schellhorn, Nancy; Ph.D. 2000, Entomology; Advisor: D. Andow
Sharpe, Leah; Ph.D. 2006 – 2008, Conservation Biology; Advisor: A. Kapuscinski
Simone, Mike; Ph.D. 2010, EEB; Advisor: M. Spivak
Skinner, Luke; Ph.D. 2003, Entomology; Advisor: D. Ragsdale
Smith, Scott; M.S. 2000; Entomology; Advisor: V. Krischik
Steck, Meredith, Ph.D. 2014- 2018; EEB; Advisor: E. Snell-Rood
Stenoien, Carl; Ph.D. 2017; EEB; Advisor: K. Oberhauser
Stout, Spencer; M.S. 2021; Entomology; Advisor: Brian Aukema
Tanner, Jessie; Ph.D. 2014 - 2018; EEB; Advisor: Mark Bee
Tran, Ahn; M.S. 2014-2016; Entomology; Advisor R. Koch
van Veldhuizen Yoder, Michelle; M.S. 2007, Entomology; Advisor D. Ragsdale
Watson, Monica; Ph.D. 2014; EEB; Advisor: Georgiana May
White, Jennifer; Ph.D. 2005, EEB; Advisor: D. Andow
Wittman, Jake; Ph.D. 2019 – present; Entomology; Advisor: Brian Aukema
Zeilinger, Adam; Ph.D. Ph.D. 2011, Conservation Biology; Advisor: D. Andow

Membership on grad student committees outside the U. of M.

Burger, Joep M.S.; Ph.D. 2004. Wageningen University, The Netherlands; Advisors: J.C. van Lenteren & L.E.M. Vet.
Crow, Carly, M.S. 2020 - present. Northern Illinois University, Dept. of Biological Sciences, Advisor: J. Koop.
Pike, Courtney, Ph.D. 2021 – present. Vienna University, Austria, Dept. of Biology; Advisor: S. Tebbich.

Thesis reader for students outside the Univ. of Minnesota

Siekman, Gitta; Ph.D. 2002. Department of Applied and Molecular Ecology, The University of Adelaide, Australia. Advisor: Mike Keller
Rundle, Brad; Ph.D. 2004. Centre for Environmental Stress and Adaptation Research, La Trobe University, Victoria, Australia. Advisor: Ary Hoffman
Mahmooda Begum; M.S. 2004. Sydney University, Australia. Advisor: Geoff Gurr
Orre, G.U. Sofia; Ph.D. 2010. Lincoln University, New Zealand. Advisor: Stephen Wratten.

Keinan, Yael; Ph.D. 2019. Department of Ecological and Environmental Sciences, University of Haifa, Israel. Advisor: Tamar Kaesar.
Cimadom, Arno; Ph.D. 2019. Department of Biology, University of Vienna. Advisor: Sabine Tebbich.
Thierry, Melanie; Ph.D. 2021. Faculty of Science, University of South Bohemia, Czech Republic. Advisor: Jan Hrcek.

Mentoring High School Students

Sierra Danforth & Sahar Hakim-Hashemi; 2008
-Breck School Summer Science Internship Program
- Recipients: Top Team: Ricoh Sustainable Development Award
- Recipients: Agriculture in the Classroom Award
- Awardees: Tristate Junior Science and Humanities Symposium
- Finalists: International Science and Engineering Fair
- Finalists: Minnesota State Science Fair
- Semifinalists: Siemens Westinghouse Science Fair
- 4th Place: Junior Science and Humanities Symposium
Eric Chien; 2009
- Breck School Summer Science Internship Program
Rachel Whaley; 2010
- Breck School Summer Science Internship Program

Non-academic teaching service

1996 Purdue University; Midwest Institute for biological control. Co-taught short course entitled "Theories, models, and quantitative techniques in Biological Control".
1998 Two on-farm presentations to elementary school children on biological control as part of an education program sponsored by the Minnesota Dept. of Agriculture.
1998, 2001 Entomology presentation to pre-school children at Jeanne Lyle Children's center, St. Paul.
1999, 2000, 2001 Entomology presentation to kindergarten class at Nativity elementary school, St. Paul.
1999 Presentation at Crop Management Short Course, U of MN Extension
2000 Presentation to Hennepin County Master Gardeners.
2001 Presentation to Anoka County Master Gardeners.
2002 Pesticide Applicator Training Workshop: Insects and Diseases of Ornamentals. Presentation: Beneficial Insects: When do they work and how to use them. Organizer: V. Krischik.
2002 University of Illinois; Midwest Institute for Biological Control. Co-taught short course entitled “Biology of Parasitic Hymenoptera: Implications for Biological Control”.
2004 Co-taught an Agroecology course at Lincoln University, Christchurch, New Zealand. Organizer: Steve Wratten.
2009. Three entomology presentations at Groveland Park Elementary School, St. Paul, MN (2nd grade).

Committees & Administration

Departmental - Entomology

1997-1999, 2003, 2004: Seminar committee (chair 2007 – 2009)
1999 - 2008: Curriculum committee
- 2001: co-chair w/ Susan Weller
1999 - 2002: Linnaean team: coach
2001- 2007: Awards committee (chair 2003 - 2006)
2001 - 2003, 2005 – 2008, 2009 – 2011; 2015 – 2018, 2020 - present: Long-Range planning committee (elected for five terms)
2009 – 2010: Chair of search committee for Forest Entomologist
2009 – 2013: Director of Graduate Studies
2011 – 2012: Member of search committee for Soybean Entomologist
2014 - 2015: Member of search committee for Pollinator Ecologist
2015 – present: Chair of seminar committee
2015 – 2016: Member of search committee for Entomology Department Head
2016 – 2017: Member of 2nd search committee for Entomology Department Head
2018 – 2019: Member of search committee for Insect Functional Genomics
2019 – present: Member of Curriculum Committee

Departmental – Other

2001 – 2002, 2009: Outside member of 2 search committees in Dept. of Ecology, Evolution & Behavior

College

1999 - 2002: College Curriculum committee
2000 - 2001: New course approval sub-committee of the College Curriculum committee
2002 - 2004: member of Select Subcommittee on Student Learning Communities
2004 – 2008: member of College-wide Awards Committee
2005: Chair: COAFES Faculty Development Committee
2006 – 2007: Member: CFANS Faculty Development Committee
2008 – 2009: CFANS task force on Environmental Change
2009 – 2013: Graduate and Research Policy and Review Standing Committee
2009 – 2012: Graduate and Research Policy and Review Executive Committee
2014 – 2016: member: Food Systems Advisory Committee
2015- 2017: Member: CFANS FCC.

Graduate School

2005-2006: Member: Graduate Student Research Proposal Committee
2007 – 2009: Member: Graduate School Fellowship Committee
2015: Member: Interdisciplinary Fellowship (IDF) Committee

2016: Member: Interdisciplinary Fellowship (IDF) Committee
2107: Member: Interdisciplinary Fellowship (IDF) Committee

University

2013: Chair of subcommittee for 'Special Committee for Graduate Education'; reported to FCC and Provost
2019 - present: Member of Faculty Senate

Regional

1997 - 1998. NCR-125; member
1999 - present. NCR-125 (NCERA 220). Minnesota representative
Site organization co-coordinator for 2002
President 2003, 2010, 2017

International

2002 – 2004 International Organization of Biological Control (IOBC) Nearctic Regional Section (NRS); Member-at-Large
2004 – 2006. Vice-president of IOBC NRS
2007 – present. Co-convener of IOBC Global working group on best practices in arthropod biological control.
2016 – 2020. President of IOBC Global section (elected position)
2020 – present. Past President of IOBC Global section.

Other

2000 - 2001: Organizer – MN Biological Control Initiative
1999 – present: Member of steering committee: Center for Community Genetics
Fall 2001: Coordinator
2000 - 2006: Active member: Biological Basis of Behavior Group
2002 – 2006: Member: Invasion Biology Research Consortium
2008 - 2013: NSF IGERT on Invasive Species and Genotypes
- Chair: Undergraduate Research Committee
- Member: Executive Committee
- Member: Research Committee
2016: Co-chair (with Erik Rundquist) of a committee convened by the Minnesota Invasive Terrestrial Plants and Pests Center on the hypothesis that chemical management of the soybean aphid is negatively impacting populations of endangered prairie butterfly species in Minnesota.

Funded grants authored or co-authored

Research Grants

1992-1994. U.S.D.A. Competitive grant: Nutritional ecology of *Aphytis* parasitoids: Non-host foods and host feeding. P.I.: J. A. Rosenheim (co-authored by G. E. Heimpel). Amount awarded: $ 94K.

1994-1995. University of California Statewide I.P.M. Project: Improving biological control of San Jose scale using flowering cover crops. P.I.: G.E. Heimpel & J. A. Rosenheim. Amount awarded: $ 18.5K.

1994-1995. Sustainable Agriculture Research and Education Program: Improving biological control of San Jose scale using flowering cover crops. P.I.: G. E. Heimpel & J. A. Rosenheim. Amount awarded: $ 1K.

1995-1997. U.S.D.A. Competitive grants; Post-doctoral Fellowship: Behavioral responses to sex determination in the parasitoid *Bracon hebetor*. P.I.: G. E. Heimpel; Host: M. R. Strand. Amount awarded: $ 80K.

1995-1997. N.S.F. Competitive grants; Post-doctoral Fellowship: Dispersal in insect parasitoids: molecular approaches to ecological questions. P.I.: G.E. Heimpel; Host: G. K. Roderick. Amount awarded: $ 80K (declined).

1997-1998. University of Minnesota Graduate School Grant-in-aid. Biased sex ratios in ladybird beetles. P.I.: G.E. Heimpel. Amount awarded: $ 21,461.

1998 – 2001. Minnesota Department of Agriculture; Sustainable Agric. program. Biological control of Alfalfa blotch leafminer. PI G.E. Heimpel. Amount awarded: $15,000.

1998-2000. Agricultural Utilization Research Institute. Reducing pesticide use in alfalfa. PIs: W. D. Hutchison, R. Venette, G.E. Heimpel. Amount awarded: $30,000 (portion allocated to Heimpel: $6,000).

1998-2001. U.S.D.A. North-central regional I.P.M. program. Biological control of alfalfa blotch leafminer in the upper Midwest. PIs: D. Hogg, G.E. Heimpel, W.D. Hutchison, J. Obrycki & R.W. Wiedenmann. Amount awarded: $75,000 (Portion allocated to Heimpel: $25,258).

10/1998 – 9/2001. U.S.D.A. Competitive grants program; entomology panel. Insect response to plant diversity in agroecosystems: effects of weed-suppressing cover crops. PI: G.E. Heimpel. Amount awarded: $160,000.

1998-1999. Univ. Minn. Grant-in-Aid. Honeydew as a sugar source for parasitoids. PI: G.E. Heimpel. Amount awarded: $12,000.

1999-2000. National Agricultural Pesticide Impact Assessment Program. Biological Control of Cole Crop Pests. PIs: G.E. Heimpel & J.G. Lundgren. Amount awarded: $17,500.

1999-2001. Minnesota Dept. of Agriculture. Integrated Biological Control of Lepidopteran Cabbage Pests. PIs: J.G. Lundgren & G.E. Heimpel. Amount awarded: $31,500.

2000-2002. U.S.D.A. N.R.I. Competitive grants program (Entomology & Nematology panel). Male-biased sex ratios and sex determination mechanisms in parasitoids. PI's: K.R. Hopper, G.E. Heimpel, P.J. Ode & R. Fuester. Amount awarded: $155,000 (component for MN: $80.153).

2000-2002. U.S.D.A. North Central regional I.P.M. program. Flowering cover crops and biological control of cabbage pests. P.I.: G.E. Heimpel. Amount awarded: $60,000.

2000-2005. N.S.F. Biocomplexity Program. Evolution and Ecology of perturbed interactions: modeling disequilibria in time and space. PIs: Claudia Neuhauser, Donald N. Alstad, Peter Graham, Georgiana May, Ruth G. Shaw, David A. Andow, James V. Groth, George E. Heimpel, Nicholas R. Jordan, Patrice A. Morrow. Amount awarded: $2,965,344 (amount to Heimpel: $174,753).

2001-2002. U.S.D.A. APHIS & NBCI. Translation of Chinese literature on soybean aphid. P.I.s: Z. Wu & G.E. Heimpel. Amount awarded: $7,500

2001-2002. U.S.D.A. APHIS & NBCI. Foreign exploration for natural enemies of the soybean aphid. Lead P.I. R. O'Neill w/ various co-P.I.s from 5 Midwestern states. Total amount awarded: $40,000; P.I.s from Univ. of Minn. Entomology: D.W. Ragsdale & G.E. Heimpel; amount to Heimpel: $8,000.

2001 – 2002. Univ. of MN, Rapid Agricultural Response. Biology, Risk Assessment and Management of the Soybean Aphid. P.I.s: K. Ostlie, D. Ragsdale, R. Venette, G. Heimpel, I. MacRae et al.; Amount requested: $258,595 (amount to Heimpel: $14,000).

2002. Minnesota Soybean Research and Promotion Council. A multitactic approach for management of soybean aphid. P.I.s. D. Ragsdale, K. Ostlie, I. MacRae, G.E. Heimpel, R. Venette, J. Orf & J. Gonsulus. Amount awarded: $74,414 (amount to Heimpel: $13,000).

2002 – 2003. U.S.D.A. APHIS. Foreign Exploration and Host/Prey Range Testing for Asian Natural Enemies of Soybean Aphid. P.I.s: G.E. Heimpel, D. Ragsdale, D. Voegtlin. Total amount awarded: $61,490 (amount to Heimpel: $54,000).

2002 – 2003. Univ. of MN, Rapid Agricultural Response. Biology, Risk Assessment and Management of the Soybean Aphid. P.I.s: K. Ostlie, D. Ragsdale, R. Venette, G. Heimpel, I. MacRae et al.; Total amount awarded: $150,000 (amount to Heimpel: $15,000).

2003 – 2005. Management of Soybean Aphid in the North Central States. North Central Soybean Research Program. P.I.: D. Ragsdale. G.E. Heimpel is one of 11 Co-Investigators. Total amount awarded: $500,000. (amount to Heimpel: $54,000).

2003 – 2004. U.S.D.A. APHIS. Screening and evaluating exotic natural enemies of the soybean aphid. P.I.s: G.E. Heimpel, Z. Wu & D. Voegtlin. Total amount awarded: $50,000 (amount to Heimpel: $45,000).

2003 – 2004. Minnesota Soybean Research and Promotion Council. Impacts of natural enemies on soybean aphid population growth and development. P.I.s D. Ragsdale, G.E. Heimpel. Amount Awarded: $54,000.

2004 – 2005. Univ. of MN, Rapid Agricultural Response. Biological control of soybean aphid. P.I.s: G.E. Heimpel & D. Ragsdale Amount awarded: $70,000.

2004 - 2006. N.S.F. Animal Behavior Panel. The evolutionary transition from solitary to gregarious development in parasitoid wasps P.I.s: P.J. Ode, G.E. Heimpel, J. Whitfield, L.E.M. Vet. Total amount awarded: $300,000.

2004 – 2007. USDA NRI. Does intraguild predation limit soybean aphid parasitoid impacts? P.I.s: D. Landis, M. Brewer, A. Costamagna & G.E. Heimpel. Total amount awarded: $205,000.

2004 – 2007. USDA Integrated Organics Program. Soybean aphid suppression using a fall-seeded rye cover crop. P.I.s: G.E. Heimpel, P. Porter, D. Ragsdale, B. Potter. Amount awarded: $461,000.

2005 – 2008. USDA RAMP. Soybean Aphid in the North Central US: Implementing IPM at the Landscape Scale', Michigan state lead organization (D. Landis). Amount to Heimpel: $130,000.

2005 – 2008. North Central Soybean Research Program. Importation Biological Control of the Soybean Aphid. P.I.: R.J. O'Neil. G.E. Heimpel is one of 12 Co-Investigators. Amount awarded to MN: $130,840.

2006 – 2007. University of Minnesota Grant-in-Aid. Molecular evolution of sex determination in *Cotesia* parasitoids. P.I.: G.E. Heimpel (with J. De Boer). Amount awarded $26,000.

2006-2010. USDA-NRI: Dynamic host specificity in aphid parasitoids. P.I.s G.E. Heimpel & K.R. Hopper. Total amount awarded: $371,000.

2007 – 2009. USDA NC IPM. Adaptive management strategies for classical biological control of the soybean aphid. P.I.s G.E. Heimpel & K. Wyckhuys. Total amount awarded: $100,000

2007 – 2012. NSF IGERT (training grant): Risk analysis for Introduced Species and Genotypes. P.I. R. Newman (Fisheries & Wildlife). G.E. Heimpel is one of 20 collaborators, but contributed substantially to the writing of the proposal. Total amount awarded: ca. $3,000,000.

2007 – 2009. U of M CFANS Rapid Response Fund. PIs D.W. Ragsdale, G.E. Heimpel, B. McCornack, A. Costamagna. Incorporating natural enemies into the economic threshold for soybean aphid. Total amount awarded: $168,378.

2007 – 2008. Minnesota Soybean Research and Promotion Council. PIs D.W. Ragsdale and G.E. Heimpel. Soybean aphid research – 2007. Amount awarded: $60,000.

2008 – 2009. Minnesota Soybean Research and Promotion Council. PIs D.W. Ragsdale and G.E. Heimpel. Soybean aphid research – 2008. Amount awarded: $60,000.

2008 – 2009. Minnesota Soybean Research and Promotion Council. PIs D.W. Ragsdale and G.E. Heimpel. Soybean aphid research – 2009. Amount awarded: $60,000.

2008 – 2010. U of M Office of the Vice-President of Research; Minnesota Futures. PIs D.A. Andow (PD), N. Anderson, S. Galatowitsch, C. Hale, G.E. Heimpel, F. Homans, R. Newman. Predicting and managing invasive potential of exotic species. Amount awarded: $250,000 ($38,000 to Heimpel).

2009 – 2012. North Central Soybean Research Program. PIs Ragsdale (PD), Heimpel, DiFonzo, Wang, Cianzio, O'Neal, Steffey, Diers, Gray, Voegtlin, Reese, McCornack, Schapaugh, Hunt, Heng-Moss, Tilmon, Cullen, Hogg, Hopper, Hoelmer. Soybean Aphid Management, Biocontrol and Host Plant Resistance. Amount awarded: $440,000 ($40,000 to Heimpel).

2009 – 2010. Minnesota Soybean Research and Promotion Council. PIs D.W. Ragsdale and G.E. Heimpel. Soybean aphid research – 2009. Amount awarded: $60,000.

2009 – 2012. U.S.D.A. Agriculture and Food Research Initiative (AFRI). PIs Heimpel (PD), M.K. Asplen, K. Oliver, J. White, K.R. Hopper. Ecological Ramifications of defensive symbiosis in an invasive aphid pest. Amount awarded: $400,000.

2011 – 2015. U.S.D.A. Sustainable Bioenergy Research. PIs Johnson, Heimpel, Wyse, Schaeffer, Tilman. The role of diversified bioenergy cropping systems in enhancing biological control of the soybean aphid. Amount awarded: $992,999.

2011-2012. Minnesota Soybean Research & Promotion Council. P.I. Heimpel. Biological Control of Soybean Aphid. Amount awarded: $47,020.

2011-2013. Rapid Agricultural Response Fund; University of Minnesota Extension. P.I. Heimpel w/ co-P.I.s Lee Frelich, Ian MacRae, Bruce Potter, Joe Kaser & Jean Ciborowski. Successful Biological Control of Soybean Aphid: The Link to Buckthorn. Amount requested: $99,000. 2011 – 2013.

2012-2013. Minnesota Soybean Research & Promotion Council. P.I. Heimpel. Biological Control of Soybean Aphid. Amount requested: $63,700

2012– 2015. North Central Soybean Research Program. PIs K. Tilmon (PD), Heimpel, DiFonzo, Wang, Cianzio, O'Neal, Steffey, Diers, Gray, Voegtlin, Reese, McCornack, Schapaugh, Hunt, Heng-Moss, Cullen, Hogg, Hopper, Hoelmer. Soybean Aphid Management, Biocontrol and Host Plant Resistance. Amount awarded: $120,000 ($40,000 to Heimpel).

2013-2014. Minnesota Soybean Research & Promotion Council. P.I. R. Koch, G.E. Heimpel, J. Orff. Soybean aphid management. Amount awarded: $102,000.

2013 – 2015. Rapid Agricultural Response Fund; University of Minnesota Extension. P.I. Heimpel. Experimental releases of a newly-approved biological control agent of the soybean aphid. Amt. awarded: $154,000.

2013 – 2016. North Central Regional Sustainable Agriculture, Research & Education (NCR-SARE) Preproposal. Project Co-ordinator: J. Peterson. Major Participants: G.E. Heimpel, K. R. Hopper, D. Wyse, C. Fernholz, G. Johnson & J. Kaser. Promoting sustainable biological control of the soybean aphid by examining the effect of biodiversity on releases of the parasitoid wasp *Aphelinus glycinis*. Amt. awarded: $178,558.

2014. Univ. of Minn. Faculty Development Grant. P.I. G.E. Heimpel. Protecting Darwin's Finches from an Invasive Parasite Using Biological Control. Amt. awarded: $15,000.

2014 – 2016. USDA AFRI. P.Is. P.J. Ode & G.E. Heimpel. Testing mechanisms of competitive displacement between two biological control agents. Amt. awarded: $450,000.

2013-2014. National Geographic Conservation Trust Proposal. P.I. Heimpel. Protecting Darwin's Finches from an Invasive Parasite Using Biological Control. Amt. awarded: $18,500.

2014-2015. International Community Foundation. P.I. C. Causton, S. Teale, G.E. Heimpel. Reversing the decline of land birds in the Galapagos. Amt. awarded $889,920 ($129,969 to Heimpel).

2014-2015. Minnesota Soybean Research & Promotion Council. P.I. G.E. Heimpel. Biological control of soybean aphid using Asian parasitoids. Amount awarded: $70,000.

2015-2016. Minnesota Soybean Research & Promotion Council. P.I. R. Koch, w/ co-P.I.s G.E. Heimpel, P. Glogoza & K. Tilmon l. Soybean Aphid Management. Amount awarded: $130,000.

2015-2016. Minnesota Soybean Research & Promotion Council. P.I. R. Koch, w/ co-P.I. G.E. Heimpel. Soybean Aphid Management. Amount awarded: $56,424.

2015-2016. U.S.D.A. Agricultural Research Service. P.I.s K.R. Hopper (PD), G.E. Heimpel, A.P. Michel & M.E. O'Neal. Integrated area-wide management of soybean aphid with biological control introductions and host plant resistance. Amount awarded: $252,540 (68,740 to Heimpel).

2016-2018. International Community Foundation. P.I. C. Causton, S. Teale, G.E. Heimpel. Reversing the decline of land birds in the Galapagos. Amt. awarded: $889,477 ($193,005 to Heimpel).

2016-2018. University of Minnesota Agricultural Response Fund. P.I. G.E. Heimpel. The role of insecticidal seed treatments in limiting biological control of soybean aphid. Amount awarded: $170,800.

2016– 2019. North Central Soybean Research Program. PIs K. Tilmon (PD), Heimpel & 20+ other P.I.s Soybean Aphid Management, Biocontrol and Host Plant Resistance. Amount awarded: $600,000 ($90,000 to Heimpel).

2016-2017. National Geographic Society. P.I. M. Bulgarella, G.E. Heimpel, S. Knutie & C. Causton. Risk assessment of permethrin-treated cotton used to protect Darwin's finches from the avian parasite *Philornis downsi*. Amount awarded: $20,000.

2017-2021. Minnesota Invasive Terrestrial Plants and Pests Center. P.I.s R. Becker, R. Montgomery, G.E. Heimpel, E.J. Katovich. *Alliaria petiolata* biocontrol: ecological host range of biocontrol agents. Amount awarded: $600,000 (portion funding M. Marek-Sparts supports Heimpel lab).

2017-2021. Minnesota Invasive Terrestrial Plants and Pests Center. P.I. G.E. Heimpel. Biological control of the soybean aphid by *Aphelinus certus*. Amount awarded: $600,000 (all to Heimpel). End date: 9/31/21 (incorporates extension)

2017 - 2022. United States – Israel Binational Science Fund (BSF). P.I.s Boaz Yuval, Edouard Jurkevitch, G.E. Heimpel. Biological Control of the Invasive Fly *Philornis downsi* in the Galapagos Islands. Amount awarded: $200,000 ($100,000 to Heimpel). End date: 8/31/2022 (incorporates extension)

2018– 2021. North Central Soybean Research Program. PIs K. Tilmon (PD), Heimpel & 20+ other P.I.s Soybean Aphid Management, Biocontrol and Host Plant Resistance. Amount awarded: $400,000 ($30,000 to Heimpel). End date: 12/31/2021

2018 – 2019. Minnesota Soybean Research and Promotion Council. P.I.s Robert Koch & G.E. Heimpel. Soybean aphid management – insecticide resistance and biological control. Amount awarded: $90,090.

2019 – 2020. American Bird Conservation. P.I. G.E. Heimpel & C.E. Causton. Using Specialized Parasitoid Wasps to Protect Darwin's Finches from the Invasive Parasite *Philornis downsi* in the Galapagos Islands. Amount Awarded: $24,000 (all to Heimpel). No official end date (Gifted to Foundation)

2019 – 2020. Morris Animal Foundation. P.I.s G.E. Heimpel & C.E. Causton. Protecting Darwin's finches from the invasive parasite *Philornis downsi* in the Galapagos Islands. Amount awarded: $97,995 (all to Heimpel). End date: 1/1/2022 (extension request in progress)

2019 – 2021. University of Minnesota Rapid Agricultural Response Fund. How Parasitoid Mortality Limits Biological Control of Soybean Aphid. P.I. G.E. Heimpel. Amount Awarded: $178,610 (all to Heimpel). End date: 8/31/2021

2020. Galapagos Conservancy. P.I. G.E. Heimpel. Establishment of a parasitoid-rearing laboratory in mainland Ecuador to support biological control of *Philornis downsi* in the Galapagos Islands. Amount awarded: 34,600 (all to Heimpel), No official end date (Gifted to Foundation)

Travel Grants

2013. Institute on the Environment Travel Grant. PI Heimpel. Saving Darwin's finches from an invasive parasitic fly. Amount awarded: $2,000.

Conference Grants

2009. NSF IGERT; Invasive Species and Genotypes Conferences Competition: PI: Heimpel. Entomophagous Insects research in Minnesota: A symposium at an international conference. Amount awarded: $6,820.
2009. U.S.D.A. Agriculture and Food Research Initiative (AFRI). PI: Heimpel. Conference Proposal: The First International Entomophagous Insects Conference. Amount Awarded: $9,000.
2015. University of Minnesota Institute on the Environment Mini-Grant. PI: Heimpel with co-PIs J. Ponder and S. Cotner. Invasive Species in the Galapagos Islands – Challenges and Solutions. Amount Awarded: $3,000.

Proposals Pending

Publications

Book

Heimpel, G.E. & N.J. Mills. 2017. Biological Control: Ecology and Applications. Cambridge University Press. Cambridge, U.K.

Refereed journal articles

Google Scholar metrics:

- Total times cited: 11,322
- h-index: 57

1992

1. Heimpel, G. E. & J. A. Hough-Goldstein 1992. A survey of arthropod predators of the Colorado potato beetle (Col.: Chrysomelidae) in Delaware potato fields. Journal of Agricultural Entomology 9: 137-142.

1993

2. Hough-Goldstein, J.A., G.E. Heimpel, H.E. Bechman & C.E. Mason 1993. Arthropod natural enemies of the Colorado potato beetle. Crop Protection 12: 324-334.

1994

3. Heimpel, G.E. 1994. Virginity and the cost of insurance in highly inbred Hymenoptera. Ecological Entomology 19: 299-302.
4. Heimpel, G. E. & J. A. Hough-Goldstein 1994. Components of the functional response of *Perillus bioculatus* (Hemiptera: Pentatomidae). Environmental Entomology 23: 855-959.
5. Heimpel, G.E. & J.A. Hough-Goldstein 1994. Search tactics and response to cues by predatory stink bugs. Entomologia Experimentalis et Applicata 73: 193-197.

1995

6. Hardy, I.C.W., J.J.M. van Alphen, G.E. Heimpel, & P.J. Ode 1995. Entomophagous insects: progress in evolutionary and applied ecology. Trends in Ecology and Evolution 10: 96-97.
7. Heimpel, G.E. & J.A. Rosenheim 1995. Dynamic host feeding by the parasitoid *Aphytis melinus*: the balance between current and future reproduction. Journal of Animal Ecology 64: 153-167.

1996

8. Heimpel, G.E. & T.R. Collier. 1996. The evolution of host-feeding behaviour in insect parasitoids. Biological Reviews 71: 373-400.
9. Heimpel, G.E., J.A. Rosenheim & M. Mangel. 1996. Egg limitation, host quality, and dynamic behavior in a parasitoid wasp. Ecology 77: 2410-2420.
10. Jervis, M.A., N.A.C. Kidd, & G.E. Heimpel. 1996. Parasitoid adult feeding and biological control – a review. Biocontrol News and Information 17: 1N-22N.

1997

11. Heimpel, G.E. 1997. Extraordinary sex ratios for extraordinary reasons. Trends in Ecology and Evolution 12: 298-299.
12. Heimpel, G.E., M.F. Antolin, R. Franqui & M.R. Strand. 1997. Genetic divergence and reproductive isolation between two "strains" of *Bracon hebetor*. Biological Control 9: 149-156.
13. Heimpel, G.E., J.A. Rosenheim & D. Kattari. 1997. Adult feeding and lifetime reproductive success in the parasitoid *Aphytis melinus*. Entomologia Experimentalis et Applicata 83: 305-315.
14. Heimpel, G.E., J.A. Rosenheim & M. Mangel. 1997. Predation on adult *Aphytis* parasitoids in the field. Oecologia 110: 346-352.

1998

15. Heimpel, G.E. & J.A. Rosenheim. 1998. Egg limitation in insect parasitoids: a review of the evidence and a case study. Biological Control 11: 160-168.
16. Heimpel, G.E., M. Mangel & J.A. Rosenheim. 1998. Effects of egg and time

limitation on lifetime reproductive success of a parasitoid in the field. American Naturalist 152: 273-289.
17. Mangel, M. & G.E. Heimpel. 1998. Reproductive senescence and dynamic oviposition behavior in insects. Evolutionary Ecology 12: 871-879.

1999

18. Heimpel, G.E., M.F. Antolin & M.S. Strand. 1999. Diversity of sex-determining alleles in *Bracon hebetor*. Heredity 82: 282-291.
19. Holloway, A., G.E. Heimpel, M.S. Strand & M.F. Antolin. 1999. Survival of diploid males in *Bracon* nr. *hebetor*. Annals of the Entomological Society of America 92:110-116.
20. Kattari, D, G.E. Heimpel, P.J. Ode & J.A. Rosenheim. 1999. Hyperparasitism by *Ablerus clisiocampae* (Hymenoptera: Aphelinidae). Proceedings of the Entomological Society of Washington 101: 640-644.
21. Lundgren, J.G., R.C. Venette, J. Gavloski, W.D. Hutchison & G.E. Heimpel. 1999. Distribution of the exotic pest, *Agromyza frontella* (Diptera: Agromyzidae), in Manitoba, Canada. Great Lakes Entomologist 32: 177-184.

2000

22. Heimpel, G.E, Lundgren J.G. 2000. Sex ratios of commercially-reared biological control agents. Biological Control 19: 77-93.
23. Olson, D.M., H. Fadamiro, J.G. Lundgren & G.E. Heimpel. 2000. Effects of sugar meals on carbohydrate and lipid metabolism in a parasitoid wasp. Physiological Entomology 25: 17-26.
24. Rosenheim, J.A., Heimpel, G.E. & Mangel, M. 2000. Egg maturation, egg resorption and the costliness of transient egg limitation in insects. Proceedings of the Royal Society of London, Series B 267: 1565-1573.

2001

25. Heimpel, G.E. & F. Meloche. 2001. Biological control of alfalfa blotch leafminer (Diptera: Agromyzidae) in Ontario: status and ecology of parasitoids 20 years after introduction (Hymenoptera: Braconidae and Eulophidae). Great Lakes Entomologist 34: 17-26.
26. Hoogendoorn, M. & G.E. Heimpel. 2001. PCR-based gut content analysis of insect predators: using ribosomal ITS-1 fragments from prey to estimate predation frequency. Molecular Ecology 10: 2059-2067.
27. Jervis, M.A., Heimpel, G.E., Ferns, P., Harvey, J. & Kidd, N.A.C. 2001. Life-history strategies of parasitoid wasps: a comparative analysis of 'ovigeny'. Journal of Animal Ecology 70: 442-458.
28. Fadamiro, H.Y & G.E. Heimpel. 2001. Effects of partial sugar deprivation on lifespan and carbohydrate mobilization in the parasitoid *Macrocentrus grandii* (Hymenoptera: Braconidae). Annals of the Entomological Society of America 94: 909-916.

2002

29. Hoogendoorn, M. & G.E. Heimpel. 2002. Indirect interactions between an introduced and a native ladybird beetle species mediated by a shared parasitoid. Biological Control 25: 224-230.
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2019

135. Bulgarella, M., M. A. Quiroga, and G. E. Heimpel. 2019. Additive negative effects of *Philornis* nest parasitism in small and declining Neotropical bird populations. Bird Conservation International 29: 339 – 360.

136. Heimpel, G.E. 2019. Linking parasitoid nectar feeding and dispersal in conservation biological control**.** Biological Control 132: 36-41.
137. Hopper, K.R., S.J. Oppenheim, K.K. Kuhn, K. Lanier, K.A. Hoelmer, G.E. Heimpel, W.G. Meikle, R.J. O'Neil, D.G. Voegtlin, K. Wu, J.B. Wooley, J.M. Heraty. 2019. Counties not countries: variation in host specificity among populations of an aphid parasitoid. Evolutionary Applications 12:815-829.
138. Miksanek, J.R. & G.E. Heimpel. 2019. A matrix model describing host-parasitoid population dynamics: the case of *Aphelinus certus* and soybean aphid. PLoS ONE 14(6): e0218217
139. Vyas, D, J.A. Harvey, R.L. Paul, G.E. Heimpel & P.J. Ode. 2019. Ecological dissociation and re-association with a superior competitor alters host selection behavior in a parasitoid wasp. Oecologia 191:261-270.

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140. Bulgarella, M., S.A. Knutie, M.A. Voss, F. Cunninghame, B.J. Florence-Bennett, G. Robson, R.A. Keyzers, L.M. Taylor, P.J. Lester, G.E. Heimpel & C.E. Causton. 2020. Sub-lethal effects of permethrin exposure on a passerine: Implications for managing ectoparasites in wild bird nests. Physiological Conservation: coaa076.
141. Giordano, R., R. K. Donthu, A. V. Zimin, I. C. Julca Chavez, T. Gabaldon, M. van Munster, L. Hon, R. Hall, J. H. Badger, M. Nguyen, A. Flores, B. Potter, T. Giray, F. N. Soto-Adames, E. Weber, J. A. P. Marcelino, C. J. Fields, D. J. Voegtlin, C. B. Hill, G. L. Hartman, T. Akraiko, A. Ashwanden, A. Avalos, M. Band, B. Bonning, A. Bretedeau, O. Chiesa, A. Chirumamilla, B.S. Coates, G. Cocuzza, E. Cullen, P. Desborough, B. Diers, C. DiFonzo, G.E. Heimpel, T. Herman, Y. Huanga, J. Knodel, C.-C. Ko, G. Labrie, D. Lagos-Kutz, J.-H. Lee, S. Lee, F. Legeai, M. Mandrioli, G. C. Manicardi, E. Mazzoni, G. Melchiori, A. Micijevic, N. Miller, A. Nasuddin, B.A. Nault, M.E. O'Neal, M. Panini, M. Pessino, D. Prischmann-Voldseth, H.M. Robertson, S. Liu, H. Song, K. Tilmon, J. Tooker, K. Wu & S. Zhan. 2020. Soybean aphid biotype 1 genome: Insights into the invasive biology and adaptive evolution of a major agricultural pest. Insect Biochemistry and Molecular Biology 120:103334.
142. Miksanek, J.R & G.E. Heimpel. 2020 A field-based assessment of the parasitoid *Aphelinus certus* as a biological control agent of soybean aphid in North America. Biological Control 146: 104284.
143. Miksanek, J.R & G.E. Heimpel 2020. Density-dependent lifespan and estimation of life expectancy for a parasitoid with implications for population dynamics. Oecologia 194: 311-320.
144. Mohl, E.K., C.M. Stenoien & G.E. Heimpel. 2020. Host plant species affects adult oviposition and larval performance of the aphid predator *Aphidoletes aphidimyza*. Ecological Entomology 45: 606-616.

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145. Calvo-Agudo, M., Dregni, J.S., González-Cabrera, J., Dicke, M., Heimpel, G.E., Tena, A., 2021. Neonicotinoids from coated seeds toxic for honeydew-feeding biological control agents. *Environmental Pollution* 289: 117813.
146. Heimpel, G.E., P.K. Abram & J. Brodeur. 2021. A phylogenetic perspective on parasitoid host ranges with implications for biological control. *Current Opinion in Insect Science* 44: 95-100.
148. Jose, P.A., Ben-Yosef, M., Lahuatte, P., Causton, C.E., Heimpel, G.E., Jurkevitch, E. and Yuval, B. 2021. Shifting microbiomes complement life stage transitions and diet of the bird parasite *Philornis downsi* from the Galapagos Islands. Environmental Microbiology. doi.org/10.1111/1462-2920.15435.
149. Koop, J.A.H., C.E. Causton, M. Bulgarella, E. Cooper & G.E. Heimpel. Population structure and connectivity of an invasive nest parasite, *Philornis downsi*, in the Galapagos Islands. *Conservation Genetics* 22: 11-22.
150. Monticelli, L., N. Desneux & G.E. Heimpel. Parasitoid-mediated indirect interactions between unsuitable and suitable hosts can generate apparent predation over both short and long time frames. *Ecology & Evolution* 11:2449-2460.

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Batista, M.C., G.E. Heimpel, M. Bulgarella & M. Venzon. Diet breadth of the aphid predator *Chrysoperla rufilabris* Burmeister (Neuroptera: Chrysopidae). Bulletin of Entomological Research; In press.

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Monticelli, L.S., N. Desneux, A. Biondi, E. Mohl & G.E. Heimpel. Post-introduction changes of host specificity traits in the aphid parasitoid *Lysiphlebus testaceipes*. *Entomologia Generalis*; In revision.

Pike, C.L., I.E. Ramirez, D.J. Anchunida, B. Fessl, G.E. Heimpel & C.E. Causton. Behavior of the avian parasite *Philornis downsi* (Diptera: Muscidae) in and near host nests in the Galapagos Islands. *Journal of Insect Behavior*; In press.

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Bulgarella, M., M.P. Lincango, P.L. Lahuatte, J.D. Oliver, A. Cahuana, I.E. Ramírez, R. Sage, A.J. Colwitz, D.A. Freund, J.R. Miksanek, R.D. Moon, C.E. Causton & G.E. Heimpel. Persistence of the invasive Darwin's finch parasite *Philornis downsi* in the Galapagos Islands: an age-grading approach. *Scientific Reports*. In revision.

Submitted or Invited

Rueda-Cediel, P., Ramirez, I.E., Koop, J., Miksanek, J., Kleindorfer, S., Common, L., Tebbich, S., Cimadom, A., Kofler, B., Knutie, S., Yuval, B., Jurkevitch, E.,

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Book chapters

Rosenheim, J.A. & G.E. Heimpel 1994. Sources of intraspecific variation in oviposition and host-feeding behavior. In: Rosen, D. (ed.): Recent Advances in the Study of *Aphytis*, pp. 41-78. Intercept press, Andover, UK.

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Boulton, R. A. and Heimpel, G.E. 2017. Potential for biological control of a parasite of Darwin's finches. Pages 23-28 *in* R. G. Van Driesche and R. C. Reardon, editors. Suppressing Over-Abundant Invasive Plants and Insects in Natural Areas by Use of their Specialized Natural Enemies. FHTET, USDA Forest Service, Morgantown, WV, USA.

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Heimpel, G.E. and K.A.G. Wyckhuys. *In press*, Biological Control as a Conservation Science. In P. Mason, editor, Biological Control: A Global Endeavor, CSIRO Press.

Symposium Proceedings and Abstracts

Heimpel, G.E., J.A. Rosenheim & J.M. Adams 1994. Behavioral ecology of host feeding in *Aphytis* parasitoids. Proceedings of the 7th European Workshop on Insect Parasitoids: Norwegian Journal of Agricultural Sciences Supplement 16: 101-115.

Hoogendoorn, M. & G.E. Heimpel. 2003. PCR-based cut content analysis of insect predators: using ribosomal ITS-1 fragments from prey to estimate predation frequency. Proceedings of the 1st International Symposium on Biological Control of Arthropods. Honolulu, Hawaii, 1/2002. Pp. 91 – 97.

Lee, J.C. & G.E. Heimpel. 2003. Sugar feeding by parasitoids in cabbage fields and the consequences for pest control. Proceedings of the 1st International Symposium on Biological Control of Arthropods. Honolulu, Hawaii, 1/2002. Pp. 220 – 225.

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Heimpel, G. E., P. M. Porter, D. W. Ragsdale, R. L. Koch, and B. Potter. 2005. The potential role of insect suppression in increasing the adoption of cover crops. M. S. Hoddle, ed. Second International Symposium on Biological Control of Arthropods:185-191.

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de Boer, J. G., P. J. Ode, L. E. M. Vet, J. Whitfield, and G. E. Heimpel. 2007. Multiple locus complementary sex determination in the parasitoid wasp *Cotesia vestalis*. Journal of Insect Science 7:5-6.

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Boulton, R.A., Bulgarella, M., Ramirez, I.E., Causton, C.E. 2019. Management of the invasive avian parasitic fly, *Philornis downsi*, in the Galapagos Islands: is biological control a viable option? In: Veitch, C.R., M.N. Clout, A.R. Martin, J.C. Russell & C.J. West (eds): Island Invasives: Scaling Up to Meet the Challenge, pp. 360-363. Occasional Paper SSC no. 62. Gland Switzerland: IUCN.

Experiment Station Reports, Extension publications, etc.

Heimpel, G.E. 1989. Ecology and natural management of voles in apple orchards. Rodale press, Emmaus PA. 13 pp.
Heimpel, G.E. 1999. Biological control of agricultural pests in Minnesota. Proceedings of the 1999 Minnesota Crop Pest Management Short course. University of Minnesota Extension Service.
Bartels, D., R. Venette, E. Burkness, P. O'Rourke, W.D. Hutchison, & G.E. Heimpel. 1999. Alfalfa blotch leafminer update. Minnesota Pest Report, MPR 2-99, Ag Marketing & Dev. Div., Minn. Dept. Agr.
Heimpel, G.E. 2000. Alfalfa blotch leafminer update: Biological control the best long-term option. Forage Clippings; Minnesota Forage and Grassland Council 7:1-2.
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Heimpel, G.E., D.A. Andow, J.G. Lundgren & S. Mahr. 2000 Release methods for *Trichogramma* parasitoids. Biological Control Fact Sheet – NCR-125 Committee web-based document (series edited by D. Landis). http://www.cips.msu.edu/ncr125/GuideTricho.htm
Heimpel, G.E. & J.C. Lee 2003. Flowering cover crops and biological control of cabbage pests. NC IPM: For Our environment, For Our Future. North Central Regional Integrated Pest Management Grants Program 1998-2000.
Landis, D.A., Brewer, M.J., & Heimpel, G.E. (2003). Soybean Aphid Parasitoid Questionnaire 2003. NCR-125 Michigan State Report: on-line at http://www.ncera125.ent.msu.edu/StateRpts2003MI.htm
Vickery, J. & G.E. Heimpel 2003. Biological control of musk thistle: is it worth the risk?. The Thicket! An online newsletter of the IPM division of the Minnesota Dept. of Agriculture. Volume 2 no. 1 – Winter 2003. http://www.mda.state.mn.us/ipm/thicket/v2n1a5.htm.
Heimpel, G. E. 2007. Biocontrol Musings: Biological control by ants - for ants Page 4 *in* IOBC-NRS Newsletter. (Fall 2007)
Heimpel, G. E. 2008. Biocontrol Musings: *Harmonia* 'Saddam' *axyridis*. Page 4 *in* IOBC-NRS Newsletter. (Spring 2008)
Heimpel, G. E. 2008. Biocontrol Musings: That's just gross. Page 6 *in* IOBC-NRS Newsletter. (Summer 2008)
Heimpel, G. E. 2008. Biocontrol Musings: Thwarted cats. Page 4 *in* IOBC-NRS Newsletter. (Fall 2008)
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Heimpel, G.E. 2009 Biocontrol Musing: Poor *Rhinocyllus*. Page 4 in IOBC-NRS Newsletter. (Summer 2009)
Heimpel, G.E. 2009 Biocontrol Musings: Fast forward to Cedar Creek. Pages 1,4 in IOBC-NRS Newsletter. (Fall 2009)
Heimpel, G. E. 2010. BioControl Musings: Leo's interpretation. IOBC-NRS Newsletter (Spring 2010):4.

Heimpel, G. E. 2010. BioControl Musings: Where's the Toids? IOBC-NRS Newsletter (Summer 2010):4.
Heimpel, G.E., 2010. Gastro-intestinal biological control. IOBC-NRS Newsletter (Fall 2010).
Heimpel, G. E. 2011. Biocontrol Musings: Parasitoids are better taxonomists than entomologists are. IOBC-NRS Newsletter (Spring 2011) 33:4.
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Heimpel, G. E. 2014. Biological control in the Galapagos Islands. IOBC-NRS Newsletter 36(1):4.
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Heimpel, G.E. 2015. Movable ecosystem services. IOBC-NRS Newsletter 37(2): 4.
Heimpel, G.E. 2016. We need more disease vector biological control. IOBC-NRS Newsletter 38
Heimpel, G.E. 2016. Message from the president. IOBC-Global Newsletter Issue 100 (December 2016).
Heimpel, G.E. 2017. Message from the president: Interdisciplinary biological control. IOBC-Global Newsletter Issue 101 (June 2017).
Heimpel, G.E. 2017. President's Column: Biological Control in Social Media. IOBC-Global Newsletter Issue 102 (December 2017).
Heimpel, G.E. 2018. President's Column: Working Groups Are the Heart of the IOBC. IOBC-Global Newsletter Issue 103 (June 2018).
Heimpel, G.E. 2018. President's Column: Interdisciplinary Biological Control in Beijing. IOBC-Global Newsletter Issue 104 (December 2018).
Heimpel, G.E. 2019. President's Column: Biological Control as a Conservation Science. IOBC-Global Newsletter Issue 105 (June 2019)
Heimpel, G.E. 2019. President's Column: Last Best Hope. IOBC-Global Newsletter Issue 106 (December 2019)
Heimpel, G.E. 2020 President's Column. IOBC-Global Newsletter Issue 107 (June 2020).

<u>Published correspondence with (or as) journal editors, including news pieces</u>

Heimpel, G.E. 1997. Hymenopteran sex ratios: reply from G.E. Heimpel. Trends in Ecology and Evolution 12: 489.
Heimpel, G. E., and T. E. Shelly. 2004. The soybean aphid: a review of its biology and management. Annals of the Entomological Society of America 97:203.
Kaya, H. K., M. Coll, G. E. Heimpel, M. S. Hunter, J. W. Kloepper, D. TeBeest, J. D. Vandenberg et al. 2006. Thank you to Charu. Biological Control 38:296-296.
Ode, P.J. & G.E. Heimpel. 2016. Editorial overview: Parasites/parasitoids/biological control: Communities without parasitoids? Current Opinion in Insect Science 14: viii- x.
Heimpel, G.E. 2017. Could biological control protect Darwin's finches from an invasive parasite? Biocontrol News and Information 38: 21N-22N.
Heimpel, G.E. 2019. Preface. Biological control in Latin America and the Caribbean: its rich history and bright future. CABI Press; In press.

Scientific Conferences or Symposia Organized

3/2000 North Central Branch of the Entomological Society of America; Minneapolis, MN. Symposium title: Invasive Species and Biological Control. Symposium organizers: G.E. Heimpel & R. Wiedenmann.
1/2002 1st International Symposium on Biological Control of Arthropods, Honolulu, HI. Block title: Habitat manipulation and Conservation Biological Control: Nectar feeding by parasitoids. Organizers: G.E. Heimpel & R. Pfannenstiel.
1/2002 1st International Symposium on Biological Control of Arthropods, Honolulu, HI. Block title: Habitat manipulation and Conservation Biological Control: Alternative hosts and habitat refuges for parasitoids. Organizers: R. Pfannenstiel & G.E. Heimpel.
5/2003 2nd Symposium of the Minnesota Invasion Biology Research Consortium. Title: Biological Control: Risks and Benefits. Organizers: D. Larson, D.W. Ragsdale, G.E. Heimpel & R. Newman.
1/2004 3rd Annual Retreat of the Minnesota Invasion Biology Research Consortium. Minnesota Landscape Arboretum, Jan. 12, 2004.
11/2005 Symposium of the International Organization of Biological Control (IOBC) at the National Meeting of the Entomological Society of America. Title: Biological control in support of conservation biology.
3/2006 Symposium at the North Central Region meeting of the Entomological Society of America (w/ R.J. O'Neil). Title: Biology and Management of the Soybean Aphid.
12/2006 Symposium of the International Organization of Biological Control (IOBC) at the National Meeting of the Entomological Society of America. Title: Best Practices in Classical Biological Control.
7/2009 First International Entomophagous Insects Conference. Minneapolis, MN. (with P.J. Ode).
5/2010 Symposium at Conference of the Nearctic Regional Section of the International Organization of Biological Control (NRS IOBC), Niagara Falls, Canada. (with Peter Mason).
10/2010 Symposium at Ecology of Aphidophaga meeting in Perugia, Italy (with Jacques Brodeur). Biological control of soybean aphid

3/2011 Symposium at North Central Branch meeting of the Entomological Society of America, Minneapolis, MN (with Jen White). Invaders from the east: implications for biological control.
8/2012 Symposium at International Congress of Entomology, Daegu, S. Korea (with Peter Mason & Helen Roy). Benefits and Risks of Classical Biological Control.
6/2015 Workshop at University of Minnesota Institute on the Environment (with Sehoya Cotner & Julia Ponder): Invasive Species in the Galapagos Islands: Challenges and Opportunities.
6/2017 Symposium: The Interplay of host-plant resistance and biological control in pest management. Organizers: J. Harmon, G.E. Heimpel, M. O'Neal, J. White. Annual meeting of the North Central Branch of the Entomological Society of America, Indianapolis, IN, USA.
5/2018 First International Congress of Biological Control. May 14 – 16, Beijing, China. Co-chair of Scientific Committee.
4/2021. Second International Congress of Biological Control. April 26 – 30 (planned; virtual hybrid), Davos, Switzerland. Co-chair of Scientific Committee.
5/2021. Fifth International *Philornis* Workshop. Charles Darwin Foundation (virtual) Member of Planning Committee.
12/2021. OrgHort2020; Organic Horticulture Conference 2020; Catania, Italy (virtual hybrid). Member of Scientific Committee, Rapporteur for Poster Session.

Invited Presentations (presenter in bold)

Summary:

- 43 Departmental seminars
- 106 Symposium presentations, 82 as presenter.

1994

Heimpel, G.E. Institute for Evolutionary and Ecological Sciences, Leiden University, The Netherlands. Departmental seminar.
Heimpel, G.E. Department of Entomology, Wageningen Agricultural University, The Netherlands. Departmental seminar.
Heimpel, G.E. Program in Evolutionary Biology, University of Hawaii, Manau Departmental seminar.
Heimpel, G.E. Department of Entomology, University of Hawaii, Manau. Departmental seminar.

1995

Heimpel, G.E. Entomological Society of America, Pacific branch meeting, San Diego CA. Symposium presentation.

1996

Heimpel, G.E. Entomological Society of America, Pacific branch meeting, Big Sky MT. Symposium presentation.
Heimpel, G.E. International Congress of Entomology, Florence, Italy. Symposium presentation.
Heimpel, G.E. Department of Entomology, University of Wisconsin. Departmental seminar.

1997

Heimpel, G.E. Cover crops working group, Univ. of Minnesota. Informal talk.

1998

Heimpel, G.E. Weeds Discussion Group, Univ. of Minnesota. Seminar.
Heimpel, G.E. Dept. of Entomology, Iowa State Univ. Departmental seminar.
Heimpel, G.E. Entomological Society of America, Pacific branch meeting, Honolulu, HI. Symposium presentation.

1999

Heimpel, G.E. NCR-125 meeting held jointly with Western Regional Biological Control Committee, Albuquerque, NM. Symposium presentation.
Heimpel, G.E. Dept. of Entomology, Univ. of Delaware & ARS Beneficial Insects Research Laboratory. Departmental Seminar.

2000

Heimpel, G.E. North Central Branch of the Entomological Society of America; Minneapolis, MN. Symposium presentation; Symposium title: Professional Skills for Entomology Graduate Students.
Heimpel, G.E. North Central Branch of the Entomological Society of America; Minneapolis, MN. Symposium presentation; Symposium title: Invasive Species and Biological Control.

2001

Heimpel, G.E. University of Minnesota, Biological Basis of Behavior seminar series; Seminar.
Heimpel, G.E. University of California, Davis, Department of Entomology. Departmental Seminar.
Heimpel, G.E. University of California, Santa Cruz, Dept. of Environmental Sciences. Workshop entitled 'Quantitative and Evolutionary Approaches to Environmental Problem Solving'.
Heimpel, G.E. University of Illinois, Dept. of Entomology, Departmental Seminar.
Heimpel, G.E. North Central Branch of the Entomological Society of America; Fort Collins, CO. Symposium presentation; Symposium title: Aphid biological control.

Heimpel, G.E. Jilin Agricultural University, Dept. of Entomology (China), Departmental seminar.

2002

Lee, J.C. & G.E. Heimpel. Habitat manipulation and Conservation Biological Control: Nectar feeding by parasitoids 1st International Symposium on Biological Control of Arthropods, Honolulu, HI.

Hoogendoorn, M. & G.E. Heimpel. Applications of molecular methods to the processes of classical biological control. 1st International Symposium on Biological Control of Arthropods, Honolulu, HI.

Lundgren, J.G. & G.E. Heimpel. Post-release Dispersal, Distribution, and Impact of Augmented Natural Enemies in Field Crops. 1st International Symposium on Biological Control of Arthropods, Honolulu, HI.

Heimpel, G.E. University of Kentucky, Dept. of Entomology, Departmental Seminar.

Heimpel, G.E. Ecology of sugar feeding by parasitoids in the field. National Meeting of the Entomological Society of America; Ft. Lauderdale, FL. Informal Conference: The ecological basis of conservation biological control of pests (Organizer: S. Wratten).

Heimpel, G.E., D.W. Ragsdale, D. Hogg, Z. Wu and R. Ellingson. Release of *Aphelinus albipodus* in Minnesota and Wisconsin. National Meeting of the Entomological Society of America; Ft. Lauderdale, FL. Informal Conference: Update and soybean aphid research and management.

O'Neil, R.J., G.E. Heimpel, D. Voegtlin, D. W. Ragsdale, Z. Wu, K.R. Hopper and D. Prokrym. Prospects for classical biological control of soybean aphid National Meeting of the Entomological Society of America; Ft. Lauderdale, FL. Informal Conference:

Krischik, V., A. Landmark & G.E. Heimpel. Nontarget effects of systemic imidacloprid on the parasitoid *Anagyrus pseudococci* and predator *Coleomegilla maculata* when flower feeding. National Meeting of the Entomological Society of America; Ft. Lauderdale, FL. Formal Conference: Arthropod pests of ornamentals and turf (organizer: Eileen Buss).

Heimpel, G.E. Beneficial Insects: When do they work and how to use them. Pesticide Applicator Training Workshop: Insects and Diseases of Ornamentals. Presentation: Organizer: V. Krischik.

Heimpel, G.E. Netherlands Institute of Ecology combined with Department Entomology,Wageningen University; Departmental Seminar.

2003

Heimpel, G.E. Ontario Horticulture Crop Conference; Cole Crop Production Session. Ste. Catharine's, Ontario, Canada; Symposium Presentation (2/2003).

Heimpel, G.E. Entomological Society of Quebec; Symposium on Invasive Species. Quebec City, Quebec, Canada. Symposium Presentation (11/2003).

Heimpel, G.E. University of Minnesota, Dept. of Horticulture – Departmental seminar (11/2003).

Heimpel, G.E. University of Wisconsin, Dept. of Entomology – Departmental seminar

(11/2003).

Heimpel, G.E. North Dakota State University, Dept. of Entomology – Departmental seminar (12/2003).

2004

Heimpel, G.E. Biological Control in Minnesota with emphasis on soybean aphid Minnesota Organic and Grazing Conference and Trade Show. Symposium Presentation.

Heimpel, G.E. Annual Meeting of the North Central Branch of the Entomological Society of America 2/2004. Symposium presentation.

Heimpel, G.E. University of Minnesota, Department of Ecology, Evolution and Behavior 3/2004. Departmental Seminar.

Heimpel, G.E. International Congress of Entomology 8/2004. Symposium on Conservation Biological Control. Brisbane, Australia; Symposium Presentation.

Heimpel, G.E. International Congress of Entomology 8/2004. Symposium on Host-parasitoid population dynamics. Brisbane, Australia; Symposium Presentation.

Heimpel, G.E. Agro-ecology Workshop; 8/2004. Christchurch, New Zealand.

Heimpel, G.E. Biological Control of Soybean Aphid. Entomological Society of America, National Meeting (Salt Lake City) IOBC Symposium: (11/2004)

2005

Heimpel, G.E., Z. Wu, K.R. Hopper, M. Brewer & S. Acheampong. Physiological and Ecological Host Range of Aphid Parasitoids. North Central Regional Branch of the Entomological Society of America, West Lafayette, Indiana 3/2005. Symposium presentation.

Heimpel, G.E., R. Koch, P. Porter, M. Harbur, K. Koch, D.W. Ragsdale: Cover crops and insect pest suppression: Winter rye and soybean aphids in Minnesota, Second International Symposium on Biological Control of Arthropods, Davos, Switzerland 9/ 2005. Symposium presentation.

Lee, J.C. & G.E. Heimpel: Impacts of sugar feeding on parasitoid behavior in the field. Second International Symposium on Biological Control of Arthropods, Davos, Switzerland 9/ 2005. Symposium presentation.

2006

4/2006. **Heimpel, G.E.** Sex Determination in the Parasitoid Hymenoptera. Department seminar at University of Arizona (Entomology).

9/2006. **Heimpel, G.E.** & J. Casas. Behavior of Parasitoids in the Field. Plenary Address: Behavioral Ecology of Parasitoids Meeting in Nice, France.

10/2006. **Heimpel, G.E.** A Best Practices Certificate from the NRS-IOBC. Annual meeting of the Western Regional Biological Control Committee (W-1185).

10/2006. **Heimpel, G.E.** Biological Control of the Soybean Aphid. Departmental seminar at Iowa State University (Entomology).

12/2006. **Heimpel, G.E.** A Best Practices Certificate from the NRS-IOBC. Symposium

Presentation at the Annual Meeting of the Entomological Society of America. Topic: Best Practices in Classical Biological Control.

2007

9/2007 **Heimpel, G.E.**, K. Wyckhhuys & N. Desneux. Multi-faceted determinants of host-specificity in the aphid parasitoid *Binodoxys communis*. Ecology of Aphidophaga X, Athens, Greece.

10/2007. **Heimpel, G.E.** Multi-faceted determinants of host range in an aphid parasitoid. Departmental Seminar: Entomology, University of Delaware.

12/2007. **Heimpel, G.E.** Classical biological control of the soybean aphid: risk assessment and releases. Symposium presentation at the Annual Meeting of the Entomological Society of America (San Diego, CA). Topic: Soybean Aphid in the North Central US.

12/2007. **Gardiner, M.M.**, D.A. Landis, C. Di Fonzo, C. Gratton, M.E. O'Neal, G.E. Heimpel, E. Mueller, N. Schmidt, J. Chacon. Landscape diversity impacts predation of soybean aphid across the north-central region. Symposium presentation at the Annual Meeting of the Entomological Society of America (San Diego, CA)

2008

1/2008. **G.E. Heimpel** & **Z. Sezen**. Biological control of soybean aphid. Invited presentation at Minnesota Organic Farming conference.

3/2008. Z. Sezen, R.L. Koch, **G.E. Heimpel**, P. Porter, B. Potter, D.W. Ragsdale & K. Koch. Rye cover crops in soybeans aid in soybean aphid suppression. Symposium presentation; North Central Branch of the Entomological Society of America. (Colombus, OH).

9/2008. **G.E. Heimpel**. Determinants of host range in parasitoids. Departmental seminar, Cornell University (Ithaca campus).

9/2008. **G.E. Heimpel**. Classical biological control of soybean aphid. Departmental seminar, Cornell University (Geneva campus).

11/2008. **G.E. Heimpel**, L.E. Frehlich, D.A. Landis and K.R. Hopper. Soybean aphid as a component of an invasional meltdown: evaluation and implications for management. Symposium presentation at the Annual Meeting of the Entomological Society of America (Reno, NV).

11/2008. **F. Wäckers** & G.E. Heimpel. Catering to the nutritional needs of natural enemies: honeydew vs. nectar. Symposium presentation at the Annual Meeting of the Entomological Society of America (Reno, NV).

2009

4/2009: **G.E. Heimpel**, L. E. Frehlich, D.A. Landis & K.R. Hopper. Is the soybean aphid part of an extensive invasional meltdown? Symposium presentation at North Central Branch meeting, Entomological Society of America (St. Louis, MO).

2010

4/2010: **G.E. Heimpel.** Biological control of the soybean aphid. Seminar for Conservation Biology, Univ. of Minn.
9/2010: **G.E. Heimpel** & E.K. Mohl. Invasive aphids as apparent competitors. Symposium presentation at Ecology of Aphidophaga 11 meeting (Perugia, Italy)
9/2010: **G.E. Heimpel** & M.K. Asplen. A goldilocks hypothesis for dispersal of biological control agents of aphids. Symposium presentation at Ecology of Aphidophaga 11 meeting (Perugia, Italy)
9/2010: **G.E. Heimpel**. Multifaceted determinants of host range in aphid parasitoids: Departmental Seminar, University of Naples, Italy
10/2010: **G.E. Heimpel.** Biological control of the soybean aphid. Departmental Seminar, Entomology, University of Maryland.
12/2010 **G.E. Heimpel**. Risk assessment and biological control of the soybean aphid. Symposium presentation: Entomological Society of America meeting in San Diego, CA.

2011

2/2011: **G.E. Heimpel.** Biological control of the soybean aphid. Symposium presentation at 'Soybean Aphid Summit', convened by North Central Soybean Research Program. Minneapolis, MN.
3/2011: **G.E. Heimpel,** K.R. Hopper & M.K. Asplen. Classical biological control of the soybean aphid. Symposium presentation at North Central Branch meeting of the Entomological Society of America meeting, Minneapolis, MN.
9/2011: **G.E. Heimpel.** Determinants of host range in aphid parasitoids. Departmental seminar, Entomology, University of Georgia.
10/2011: **G.E. Heimpel**. Plant diversity and ecosystem services: lessons from soybean aphid biological control. Departmental Seminar, Applied Plant Sciences, University of Minnesota.

2012

2/2012: **G.E. Heimpel**. Prospects for classical biological control of *Philornis downsi* on the Galapagos Islands. Presentation at the First *Philornis* Working Group Workshop, Puerta Ayora, Galapagos Islands, Ecuador.
8/2012: **G.E. Heimpel**. Biological Control and the Carbon Cycle. Symposium Presentation; International Congress of Entomology, S. Korea
8/2012: **G.E. Heimpel**, K.R. Hopper, R. Giordano, K. Hoelmer. Soybean aphid: invasion and biological control. Symposium Presentation; International Congress of Entomology, S. Korea
11/2012 **G.E. Heimpel**: Habitat diversity and biological control: Soybean aphid as a case study. Keynote address at the Annual Meeting of the Quebec Society of Entomology, Montreal, Canada.

11/2012 **G.E. Heimpel**: Centrifugal phylogenetic host specificity testing in aphid parasitoids. Symposium presentation at National Entomological Society of America meeting, Knoxville TN.

2013

3/2013 **G.E. Heimpel.** Parasitoids of soybean aphid: Specificity and the process of biological control. Seminar presentation at University of Wisconsin.

6/2013 **G.E. Heimpel** & M.A. Jervis. Phylogenetic analyses of host range and fecundity in parasitoids. Plenary Lecture at the 3rd International Entomophagous Insects Conference, Orford, Quebec, Canada.

6/2013 **G.E. Heimpel,** S. Knutie & D.H. Clayton. Protecting Darwin's Finches from an invasive parasitic fly. Student Affairs Symposium at the North Central Branch of the Entomological Society of America meeting, Rapid City, SD.

6/2013 **J.A. Peterson**, J.O. Eckberg, K.E. Blaedow, J.M. Kaser, G.A. Johnson & G.E. Heimpel. Measuring the impact of predators and parasitoids in integrated bioenergy cropping systems. NCERA-220 (Biological Control) Symposium at the North Central Branch of the Entomological Society of America meeting, Rapid City, SD.

9/2013 **G.E. Heimpel**, A. Biondi, N. Desneux. The role of host and host-plant phylogenies in aphid parasitoid specificity. International Symposium: Ecology of Aphidophaga 12. Belgrade Serbia.

10/2013 **G.E. Heimpel**. Host specificity and the process of biological control. Departmental Seminar: University of California, Davis, Entomology.

11/2013 **J.O. Eckberg**, D. Mulla, J.A. Peterson, D. Wyse, G.E. Heimpel, G.A. Johnson. Designing farmscapes to enhance ecosystem services. Symposium presentation, National Entomological Society of America, Austin, TX.

11/2013 **G.E. Heimpel.** Host specificity studies in quarantine facilities and/or place of origin of natural enemies. Symposium presentation, National Entomological Society of America, Austin, TX.

11/2013 **G.E. Heimpel** & N.J. Mills. Defining biological control: an ecological interactions approach. Symposium presentation, National Entomological Society of America, Austin, TX.

11/2013 **J.A. Peterson**, J.O. Eckberg, K.E. Blaedow, J.M. Kaser, G.A. Johnson, G.E. Heimpel. Biological control and resource utilization by natural enemies in integrated perennial bioenergy plantings. Symposium presentation, National Entomological Society of America, Austin, TX.

2014

2/2014. **P. Lincango, G.E. Heimpel**, P. Lahuatte, D. Cedeño. *Philornis* project. Lindblad cruise ship; National Geographic Foundation; Puerto Ayora, Galapagos, Ecuador.

6/2014. **G.E. Heimpel.** *Philornis downsi*: Ecología y la Posibilidad de Control Biológico en Galapagos. Galapagos National Park Service, Puerto Ayora, Galapagos, Ecuador (in Spanish).

9/2014. **G.E. Heimpel.** Invasion of the bird-parasitic fly *Philornis downsi* into the

Galapagos Islands: Danger to Darwin's finches and a potential biological control solution. Departmental Seminar: University of Minnesota, Entomology.

10/2015. **G.E. Heimpel.** Invasion of the bird-parasitic fly *Philornis downsi* into the Galapagos Islands: Danger to Darwin's finches and a potential biological control solution. Departmental Seminar: University of Massachussets, Conservation Biology.

11/2014. **G.E. Heimpel.** Invasion of the bird-parasitic fly *Philornis downsi* into the Galapagos Islands: Danger to Darwin's finches and a potential biological control solution. Departmental Seminar: University of Minnesota, Conservation Biology.

11/2014. **G.E. Heimpel.** Invasion of the bird-parasitic fly *Philornis downsi* into the Galapagos Islands: Danger to Darwin's finches and a potential biological control solution. Departmental Seminar: University of Wisconsin, Eu Claire.

2015

1/2015. **G.E. Heimpel.** Promoting sustainable biological control of the soybean aphid: biodiversity and releases of parasitoid wasps. Northern Plains Sustainable Agriculture Conference. Aberdeen, S. Dakota.

2/2015. **M. Bulgarella**, M. Quiroga, **G. Brito** & **G.E. Heimpel.** Ecologia de *Philornis downsi* y sus parasitoides en el Ecuador continental. 2nd International Workshop on *Philornis downsi* and its management in the Galapagos Islands. Puerto Ayora, Galapagos, Ecuador (in Spanish).

2/2015. **P. Lahuatte** & **G.E. Heimpel**. Condiciones para la reproduccion de *Philornis downsi*. 2nd International Workshop on *Philornis downsi* and its management in the Galapagos Islands. Puerto Ayora, Galapagos, Ecuador (in Spanish).

2/2015. **P. Lincango** & G.E. Heimpel. Biologia reproductiva de *Philornis downsi*. 2nd International Workshop on *Philornis downsi* and its management in the Galapagos Islands. Puerto Ayora, Galapagos, Ecuador (in Spanish).

5/2015. **J. Kaser** & G.E. Heimpel. Linking risk and efficacy in biological control host-parasitoid models. Benefits and Risk of Exotic Biological Control Agents, International Organisation for Biological Control, West Palearctic Regional Section, Working Group Meeting. Bornholm, Denmark.

6/2015. **Heimpel, G.E.** & M. Bulgarella. Prospects for biological control of *Philornis downsi*, an invasive parasite of Darwin's finches. Symposium at AAS Pacific Division Meeting: Galapagos 2015: Science, Conservation and History in the 180 Years Since Darwin. San Francisco CA.

9/2015. **Bulgarella M**, M. Quiroga, M. Dominguez, G.A. Brito & G.E. Heimpel. Efecto aditivo de las moscas parásitas de aves del género *Philornis* en poblaciones de aves pequeñas y fragmentadas. Symposium presentation: Annual Meeting of the Argentinian Ornithilogical Society. Buenos Aires, Argentina.

9/2015. **Heimpel, G.E.** Habitat Diversity and Biological Control of Insect Pests: Soybean Aphid as a Case Study. Dept. Seminar at Virginia Tech University, Blacksburg, VA.

10/2015. **Heimpel, G.E.** Augmentation of Aphid Parasitoids: New Developments in Biology and Opportunities for the U.S.A. Presentation to Scientific Council of Viridaxis (commercial producer of biological control agents). Malaga, Spain.

10/2015. **Heimpel, G.E.** Documenting benefits of biological control: reductions in greenhouse gas emissions. International Organization for Biological Control Global Workshop: Future of Biological Control. Engelberg, Switzerland.

10/2015. **Heimpel, G.E.** Prospects for biological control of *Philornis downsi*, an invasive parasite of Darwin's finches. International Organization for Biological Control Global Workshop: Future of Biological Control. Engelberg, Switzerland.

11/2015. **Bulgarella, M.**, G.E. Heimpel, G.A. Brito & M.A. Quiroga. Prospects for biological control of the avian nest parasite *Philornis downsi* in the Galapagos Islands. Annual Meeting of the Entomological Society of America; Symposium presentation. Minneapolis, MN.

12/2015. Bulgarella, M. & **G.E. Heimpel**. La posibilidad de control biologico contro *Philornis downsi* en las islas Galápagos (in Spanish). Workshop on *Philornis* at the Universidad de Espirito Santo in Guayaquil, Ecuador.

2016

6/2016. **G.E. Heimpel**. Estudios para el control biológico de la mosca parásito, *Philornis downsi*, en Galapagos (in Spanish). Conference on Birds in Galapagos, Universidad Central del Ecuador, Quito Ecuador.

6/2016. **J. Kaser**, G.E. Heimpel. Evaluating classical biological control benefits and non-target risk: from models to the field. Symposium presentation. Entomological Society of America, North Central Branch meeting, Cleveland, OH.

6/2016. **J. Kaser**, J. Dregni, N. Padowski, R. Koch, G.E. Heimpel. Biological control ecology: lessons from introduced soybean aphid parasitoids. Symposium presentation. Entomological Society of America, North Central Branch meeting, Cleveland, OH.

6/2016. **G.E. Heimpel**, M. Bulgarella, I. Ramirez, R. Boulton, M. Quiroga, C. Causton, P. Lahuatte. Posibilidad de Control Biológico de la mosca parásita *Philornis downsi* en las Islas Galápago (in Spanish). Seminar at the Agency of Biosecurity, Puerto Ayora, Galapagos Islands, Ecuador.

6/2016. **G.E. Heimpel**, M. Bulgarella, I. Ramirez, R. Boulton, M. Quiroga, C. Causton, P. Lahuatte. Posibilidad de Control Biológico de la mosca parásita *Philornis downsi* en las Islas Galápago (in Spanish). Seminar at the Charles Darwin Research Station, Puerto Ayora, Galapagos Islands, Ecuador.

6/2016. G.E. Heimpel, M. Bulgarella, **R.A. Boulton** & C.E. Causton. Potential for biological control of a parasite of Darwin's finches. Symposium presentation; Annual Meeting of the Society for Conservation Biology, Madison, WI, USA.

8/2016. **G.E. Heimpel**. Causes and consequences of fecundity stimulation in aphids as a response parasitism. Keynote address. Ecology of Aphidophaga Conference, Freising, Germany.

10/2016. **M. Bulgarella**, C. Causton, M. Quiroga, G.E. Heimpel. International entomological research: Fighting through the red tape. Symposium presentation. International Congress of Entomology, Orlando, FL, USA.

10/2016. **G.E. Heimpel**. Biological control in a historical context: Shifting paradigms in classical biological control. Symposium presentation. International Congress of Entomology, Orlando, FL, USA.

10/2016. **J. Kaser** & G.E. Heimpel. Parasitoid host range, establishment success, and biological control efficacy. Symposium presentation. International Congress of Entomology, Orlando, FL, USA.

11/2016. **G.E. Heimpel.** Biological control of the soybean aphid. Symposium presentation. Workshop on linkages between soybean aphids and endangered prairie butterflies. Institute on the Environment, St. Paul MN, USA.

2017

1/2017. **R.A Boulton** & G.E. Heimpel. Prospects for biological control for *Philornis downsi* in Galapagos. Symposium presenation, Galapagos (Boulton & Heimpel). 3rd International Workshop on *Philornis downsi* and its management in the Galapagos Islands. Puerto Ayora, Galapagos, Ecuador

2/2017. **G.E. Heimpel.** Prospects for biological control of *Philornis downsi*, an invasive parasite of Darwin's finches. Dept. Seminar, Univ. Wisconsin, Madison (Entomology).

3/2017. **G.E. Heimpel.** Augmentative biological control: Opportunities and challenges for comercial mass-rearing of insect biological control agents. Symposium presentation, China International Agricultural Summit, Shanghai China

4/2017 **G.E. Heimpel**. Biological control as a conservation science: Potential for biological control of an invasive parasite in the Galapagos Islands. 25th Annual H.R. McCarthy Pest Management Lecture, Simon Fraser Univ, Canada

6/2017 **G.E. Heimpel**. Biological control as a means of conserving biodiversity: general principles and examples from the Galapagos Islands. Keynote presentation, Annual meeting of the Brazilian Society for Biological Control, Ribeirao Preto, Brazil.

6/2017 **K.D. Welch**, G.E. Heimpel, K.R. Hopper, M.C. Kaiser, M.E. O'Neal. Can aphid-resistant soybean enhance early-season suppression of soybean aphids by *Aphelinus* wasps? Symposium at the North Central Branch meeting of the Entomological Society of America, Indianapolis, IN, USA.

6/2017 **G.E. Heimpel.** Posibilidad de control biológico de la mosca parásita *Philornis downsi* en las islas Galápagos, Seminar at the Ecuadoran Institute for Biodiversity, Quito, Ecuador (in Spanish).

9/2017 **G.E. Heimpel,** K.R. Hopper, J. Kaser, J. Miksanek, M. Bulgarella, I. Ramirez & R.A. Boulton. Parasitoid host ranges: comparing studies from the laboratory and field. Symposium presentation: 5th International Conference on Biological control of Arthropods, Malaysia.

10/2017. G.E. Heimpel. Biological control as a conservation science: biological control of an invasive fly attacking Darwin's finches in the Galapagos Islands. Keynote address: Entomophagous Insects Conference, Kyoto, Japan. Presented by Dr. **Paul Ode** in my absence.

12/2017. **G.E. Heimpel.** Update on biological control of soybean aphid. Crop Pest Management Short Course. Minneapolis, MN.

2018

2/2018. **G.E. Heimpel.** Control biológico de *Philornis downsi* con parasitoides (in

Spanish). *Philornis* Workshop, Puerto Ayora, Galapagos, Ecuador.

5/2018. **B.I.P. Barratt**; P.G. Mason; M.J.W. Cock; J. Klapwijk; J.C. van Lenteren; J.Brodeur; K.A. Hoelmer; G.E. Heimpel, The Nagoya protocol and what it means for the use and exchange of biological control agents. First International Congress of Biological Control, Beijing, China.

5/2018. **G.E. Heimpel**. Potential for biological control of *Philornis downsi*, an invasive bird parasite in the Galapagos Islands. First International Congress of Biological Control, Beijing, China.

6/2018. **G.E. Heimpel.** Posibilidad de Control Biológico de la mosca parasita *Philornis downsi* en las islas Galápagos. Seminar presentation at the Escuela Superior Polytechnica del Litoral (ESPOL).

8/2018. **G.E. Heimpel & B. Barratt.** The possibility of a Weed biological control Working Group in IOBC Global. International Symposium of Weed Biological Control, Engerlberg, Switzerland.

10/2018. **G.E. Heimpel.** Control biológico: una syntesis global y un proyecto en Ecuador. Plenary address at the First Ecuadoran Congress of Applied Biological Control, Quito, Ecuador.

10/2018. **G.E. Heimpel**. Biological control as a conservation science: Protecting Darwin's finches from an invasive parasite in the Galapagos Islands. Seminar presentation at the Department of Ecology, Evolution & Behavior at the University of Minnesota, USA.

11/2018. **G.E. Heimpel**, M. Bulgarella, I. Ramirez, R. Boulton & C.E. Causton. Invasion of a bird-parasitic fly in the Galapagos Islands: enemy release and biological control. Symposium presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

11/2018. **K. Hopper**, K. Kuhn, A. Johnson, L. Qiyun, R. Wisser, S. Polson, S. Oppenheim, J. Woolley, J.M. Heraty, V. Gokhman, G.E. Heimpel, D. Voegtlin, K. Lanier, J. Rhoades, R. Kondos, D. Coutinot, G. Mercadier, M. Roche & R. Ramualde. Genetics and evolution of host specificity in aphid parasitoids. Symposium presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

11/2018. **J. Kaser**, J. Miksanek & G.E. Heimpel. Cessation of enemy release or continuation of invasion meltdown? The case of soybean aphid and its natural enemies. Symposium presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

2019

2/2019. **G.E. Heimpel** & C.E. Causton. Biological control of *Philornis downsi*: paving the way for the final analyses (in Spanish). Fourth International Conference of the International *Philornis* Working Group. Charles Darwin Foundation, Puerto Ayora, Galapagos, Ecuador.

3/2019. **G.E. Heimpel** & J. Lee. Linking parasitoid nectar feeding and dispersal in conservation biological control. Symposium presentation at the Annual Meeting of the North Central Branch of the Entomological Society of America, Cincinnati, Ohio.

6/2019. **G.E. Heimpel.** Biological Control as a Conservation Science. Plenary Address at the Foro BioProtección Vegetal, Valencia, Spain.

6/2019. **G.E. Heimpel.** Biological Control as a Conservation Science. Keynote Address at the International Symposium on Biocontrol and Integrated Pest Management for Crop Protection and Trade Facilitation, Taichung, Taiwan.

9/2019. **G.E. Heimpel**, C.E. Causton, J.R. Miksanek & K.A.G. Wyckhuys. Biological control of aphids (and allies) as a conservation science. Keynote address at Ecology of Aphidophaga 14, Montreal, Canada.

9/2019. **G.E. Heimpel**. Linking parasitoid nectar feeding and dispersal in conservation biological control. Keynote address at the 6th International Entomophagous Insects Conference, Perugia, Italy.

11/2019. **I. Ramirez**, G.E. Heimpel, C.E. Causton & M. Quiroga. The use of biological control as a conservation tool to control the vampire fly in the Galapagos islands. Invited Symposium presentation at the Annual Meeting of the Entomological Society of America, St. Louis, MO.

11/2019. **C. Stenoien**, J. Miksanik & G.E. Heimpel. Weighing the good and the bad of uninvited biological control agents: A case study with the aphid parasitoid *Aphelinus certus*. Invited workshop presentation at the Annual Meeting of the Entomological Society of America, St. Louis, MO.

2020

10/2020. **G.E. Heimpel.** El Control Biológico como Cienca de la Conservación. Plenary address at the Second Conference of Applied Biological Control of Ecuador; Virtual.

11/2020. **G.E. Heimpel**, C.E. Causton, I.E. Ramirez, M. Bugarella, R.A. Boulton, C. Lehnen & P. Rueda-Cediel. Biological Control as a Conservation Science: Protecting Darwin's Finches from an Invasive Parasite in the Galapagos Islands. Symposium presentation at the Annual Meeting of the Entomological Society of America, Virtual.

2021

2/2021: **G.E. Heimpel**. Biological control of soybean aphid: the parasitoid *Aphelinus certus*. Invited Symposium Presentation: Soybean Breeders Conference (Feb. 22 – 24, 2021; virtual)

3/2021: **G.E. Heimpel**. Biological control as a conservation science: Protecting Darwin's finches from an invasive parasite in the Galapagos Islands. Invited Seminar Presentation: Northern Illinois University, Dept. of Biological Sciences (virtual)

5/2021. **G.E. Heimpel**, I.E. Ramirez, D. Mosquera, K. Albán, C.E. Causton. Steps toward biological control of *Philornis downsi* in the Galapagos Islands. Invited Presentation at the Fifth Workshop of the International *Philornis* Working Group (May 4-6, 2021; virtual).

2022

4/2022: Invited Symposium Presentation: Latin American Congress of Entomology, Buenos Aires, Argentina (postponed from 10/2021).

7/2022: Invited Symposium Presentation: International Congress of Entomology; Helsinki, Finland (postponed from 7/2020)

Contributed presentations since 1997 (presenter in bold)
(oral presentation unless otherwise noted)

1997

Heimpel, G.E., M.F. Antolin & M.R. Strand. 12/1997. Diversity of sex-determining alleles in *Bracon hebetor*. National Entomological Society of America meeting, Nashville, TN.

1999

Heimpel, G.E. & M. Hoogendoorn. 9/1999. Sex ratio distortion in coccinellid beetles. International Entomophagous insects Workshop, Monterrey, CA.

Hoogendoorn, M. & G.E. Heimpel. 9/1999. Plant diversity and predation response by coccinellid beetles. International Entomophagous insects Workshop, Monterrey, CA.

Lundgren, J.G. & G.E. Heimpel. 9/1999. Sex ratios of commercially-reared parasitoids. International Entomophagous insects Workshop, Monterrey, CA. Poster presentation.

Fadamiro, H. & G.E. Heimpel. 12/1999. Temporal patterns of accumulation and mobilization of sugar resources in a parasitoid wasp, *Macrocentrus grandii*. National Entomological Society of America meeting, Atlanta, GA.

Heimpel, G.E. & H. Fadamiro. 12/1999. Effects of cover crops on parasitism of European corn borer. National Entomological Society of America meeting, Atlanta, GA.

Hoogendoorn, M. & G.E. Heimpel. 12/1999. Detecting gut contents of coccinellid beetles using PCR. National Entomological Society of America meeting, Atlanta, GA.

Lundgren, J.G., G.E. Heimpel & S. Bomgren. 12/1999. Use of *Trichogramma brassicae* against imported cabbageworm and cabbage looper. National Entomological Society of America meeting, Atlanta, GA.

2000

Lundgren, J.G., G.E. Heimpel & S. Bomgren. 3/2000. Use of *Trichogramma brassicae* against imported cabbageworm and cabbage looper. North-central Regional meeting of the Entomological Society of America.

Hoogendoorn, M. & G.E. Heimpel. 9/2000. The role of shared parasitism in the possible displacement of native coccinellids by introduced coccinellids. European Parasitoids Workshop, Harlem, The Netherlands.

Hoogendoorn, M. & G.E. Heimpel. 12/2000. The role of shared parasitism in the possible displacement of native coccinellids by introduced coccinellids. Entomological Society of America, National Meeting, Montreal, Quebec, Canada. Student competition.

Lee, J. & G.E. Heimpel. 12/2000. Flowering cover crops and nectar feeding by

parasitoids. Entomological Society of America, National Meeting, Montreal, Quebec, Canada. Student competition.

2001

Heimpel, G.E. Effects of male-killing bacteria on population sex ratio and sperm limitation in the lady beetle *Coleomegilla maculata.* Entomological Society of America, National Meeting, San Diego CA, USA.

Hoogendoorn, M. & G.E. Heimpel. Direct and indirect competition between an exotic coccinellid species, *Harmonia axyridis*, and a native species, *Coleomegilla maculata*. Entomological Society of America, National Meeting, San Diego CA, USA. Student competition.

Lee, J.C. & G.E. Heimpel. Impacts of nectar resources on sugar feeding and parasitism at varying spatial scales. Entomological Society of America, National Meeting, San Diego CA, USA. Student competition.
* First place winner.

Osuji, V. & G.E. Heimpel 12/2001. Lifetime functional response of the parasitoid *Macrocentrus grandii* with and without supplemental nectar. Entomological Society of America, National Meeting, San Diego CA, USA. Poster presentation.

Wu, Z., G.E. Heimpel & K.R. Hopper 12/2001. Sex determination in the braconid parasitoid *Heterospilus prosopidis*. Entomological Society of America, National Meeting, San Diego CA, USA. Poster presentation.

2002

Hoogendoorn, M. & G.E. Heimpel. 9/2002. Parasitism of two coccinellid species by *Dinocampus coccinellae*. European Parasitoids Workshop, Tours, France.

Hoogendoorn, M. & G.E. Heimpel. 11/2002. Differential parasitism in *Coleomegilla maculata* and *Harmonia axyridis*. Entomological Society of America, National Meeting, Fort Lauderdale, FL, USA. Oral presentation; student competition.

Lee, J.C. & G.E. Heimpel. 11/2002. Floral nectar impacts longevity and fecundity of parasitoids in cabbage fields. Entomological Society of America, National Meeting, Fort Lauderdale, FL, USA. Poster presentation; student competition.
* Winner of runner-up prize.

Ode, P.J., K.R. Hopper & G.E. Heimpel. 11/2002. Complementary sex determination in *Aphidius colemani*. Entomological Society of America, National Meeting, Fort Lauderdale, FL, USA. Oral presentation.

Weiser, L., G.E. Heimpel & M. F. Antolin. 11/2002. Effects of temperature and *Wolbachia* on the production of diploid males in *Habrobracon hebetor*. Entomological Society of America, National Meeting, Fort Lauderdale, FL, USA. Poster presentation.

Wu, Z., G.E. Heimpel, K.R. Hopper, D. Prokrym & R.J. O'Neil. 11/2002 Variation between two strains of *Aphelinus albipodus*: a parasitoid of soybean aphid. Entomological Society of America, National Meeting, Fort Lauderdale, FL, USA. Poster presentation.

2003

Lee, J.C., G.E. Heimpel & G. Leibee 3/2003. Effects of floral nectar and honeydew on longevity and nutrient levels of *Diadegma insulare* (Hymenoptera: Ichneumonidae). Entomological Society of America, North Central Regional meeting; Madison, WI. Poster presentation; student competition.

G.E. Heimpel, J. Lee & Z. Wu 8/2003. Effects of sugar feeding on parasitoid fecundity in the field. International Entomophagous insects workshop. Tucson, AZ.

Hsu, C. & G.E. Heimpel 8/2003. Effects of the spatial distrubution of European corn borer on dispersal and parasitism by *Macrocentrus grandii*. Ecological Society of America; National Meeting, Savannah Georgia.

Carrillo, M., C. Cannon & G.E. Heimpel 10/2003. Cold hardiness of *Habrobracon hebetor* (Say) (Hymenoptera: Braconidae). National Meeting of the Entomological Society of America, Cincinnati, OH.

Hsu, C., R. Venettte, G.E. Heimpel and D.A. Andow 10/2003. Evaluating a parasitoid's potential to influence the evolution of insecticide resistance in its host. National Meeting of the Entomological Society of America, Cincinnati, OH.

Lee, J. & G.E. Heimpel 10/2003. Effects of floral habitat on parasitoid dispersal and parasitism rates. National Meeting of the Entomological Society of America, Cincinnati, OH.

2004

Wu, Z. & G.E. Heimpel 1/2004. Biological Control of the Soybean Aphid: Molecular Tracking of Parasitoids. Third Annual Retreat of the Minnesota Invasive Species Research Consortium.

Heimpel, G.E. 1/2004. Biological control of the soybean aphid: future prospects. Third Annual Retreat of the Minnesota Invasive Species Research Consortium.

Wu, Z., G.E. Heimpel & R.J. Barta. 3/ 2004 Host feeding and Oviposition by the parasitoid Aphelinus albipodus attacking soybean aphid. North Central Branch of the Entomological Society of America (poster presentation).

Hsu, C.L. G.E. Heimpel, D.A. Andow & R. Venette. 11/2004. Gender differences in the dispersal of the specialist parasitoid. Annual Meeting of the Entomological Society of America, Salt Lake City, Utah, USA. Student Competition 10-minute paper. * prize winner

2005

Gagnon, A.E., J. Brodeur & G.E. Heimpel 9/2005. Detection of intraguild predation among coccinellids using molecular gut-contents analysis. International Symposium on Biological Control of Aphids and Coccids, Tsuruoka, Japan. Gagnon presenting.

Chacon, J. & G.E. Heimpel 12/2005. The effects of a native parasitoid and intraguild predation on the biological control of soybean aphid. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, FL, USA. Student competition.

De Boer, J. & G.E. Heimpel 12/2005. Sex determination in Cotesia parasitoid wasps. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, FL, USA.

Gagnon, A.E., J. Brodeur & G.E. Heimpel 12/2005. Intraguild predation among coccinellid predators of the soybean aphid. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, FL, USA. Gagnon presenting.

Heimpel, G.E., M.A. Jervis & P. Ferns 12/2005. Reproductive effort and host specificity in parasitoid wasps. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, FL, USA. (cancelled).

Koch, R,L., G.E. Heimpel, P.M. Porter, M.M. Harbur & D.W. Ragsdale 12/2005. Evaluation of fall seeded cover crops for insect pest management in organic soybeans. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, FL, USA.

Kulhanek, C. & G.E. Heimpel 12/2005. Laboratory host range of the Asian parasitoid *Lysiphlebia japonica*. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, FL, USA. Kulhanek presenting (poster).

2006

Heimpel, G.E. & K. Wyckhuys 2/2006. Prospects for biological control of soybean aphid. 5th Annual Retreat of the University of Minnesota Invasion Biology Research Consortium, White Bear Township, MN, USA.

Chacon, J. & G.E. Heimpel 2/2006. Asymmetric intraguild predation among predators and parasitoids of the soybean aphid. 5th Annual Retreat of the University of Minnesota Invasion Biology Research Consortium, White Bear Township, MN, USA.

Kulhanek, C. & G.E. Heimpel 2/2006. Laboratory host range of the Asian parasitoid *Lysiphlebia japonica*. 5th Annual Retreat of the University of Minnesota Invasion Biology Research Consortium, White Bear Township, MN, USA. (poster).

De Boer, J., P.J. Ode, L.E.M. Vet, J. Whitfield & G.E. Heimpel. 9/2006. Complementary Sex Determination in *Cotesia* paraitoids. Behavioral Ecology of Parasitoids Meeting in Nice, France

Desneux, N., J. Barta & **G.E. Heimpel**. 12/2006. Determinants of host range in the parasitoid *Binodoxys communis*. Annual Meeting of the Entomological Society of America, Indiannapolis, Indiana (poster).

Koch, R.L., **G.E. Heimpel**, P. Porter, B. Potter, D. Ragsdale & D. Barta. 12/2006. Effects of a fall-seeded rye cover crop on pest suppression in soybean. Annual Meeting of the Entomological Society of America, Indiannapolis, Indiana.

Wyckhuys, K. & G.E. Heimpel. 12/2006. Olfactory response of *Binodoxys communis* to target and non-target aphids. Annual Meeting of the Entomological Society of America, Indiannapolis, Indiana (poster).

2007

Chacon, J. & G.E. Heimpel 9/2007. Biotic interference of a classical biological control agent of the soybean aphid. Ecology of Aphidophaga X, Athens, Greece.

Desneux, N. & **G.E. Heimpel** 9/2007 Behavioral and Physiological Determinants of host specificity in *Binodoxys communis*. Ecology of Aphidophaga X, Athens, Greece. Poster presentation.

Chacon, J. & G.E. Heimpel 12/2007. Biological interference of a classical biological

control agent of the soybean aphid. Annual Meeting of the Entomological Society of America, San Diego, CA. Student competition.

Dieckhoff, C. & G.E. Heimpel 12/2007. Ovarian dynamics in the soybean aphid parasitoid *Binodoxys communis* (Gahan) (Hymenoptera: Braconidae). Annual Meeting of the Entomological Society of America, San Diego, CA. Student competition.

Sezen, Z., R.L. Koch, G.E. Heimpel, P.M. Porter, D.W. Ragsdale, B.D. Potter 12/2007. Effects of a fall-seeded rye cover crop on soybean suppression in organic systems. Annual Meeting of the Entomological Society of America, San Diego, CA.

Desneux, N., Barta, R.J., **G.E. Heimpel** 12/2007. Transient paralysis capacity of a koinobiont parasitoid. Annual Meeting of the Entomological Society of America, San Diego, CA. Poster presentation.

2008

Chacon, J. & G.E. Heimpel 11/2008. The effect of aphid density on intraguild predation of a soybean aphid parasitoid in the field. Student competition at the Annual Meeting of the Entomological Society of America (Reno, NV).

Dieckhoff, C. & G.E. Heimpel 11/2008. Keep them coming, baby: determinants of the field oviposition rate of the soybean aphid parasitoid *Binodoxys communis* (Hymenoptera: Braconidae). Student competition at the Annual Meeting of the Entomological Society of America (Reno, NV).

Desneux, N. & **G.E. Heimpel** 11/2008. Use of cryptic species of parasitoids in classical biological control. Annual Meeting of the Entomological Society of America (Reno, NV). Poster presentation.

2009

Asplen, M.K., J. Whitfield, J. G. De Boer & G.E. Heimpel. 7/2009. One locus or two? Evolutionary polarity of hymenopteran sex determination mechanisms. First International Entomophagous Insects Conference, Minneapolis, MN.

Chacon, J. & G.E. Heimpel. 7/2009. Density-dependent apparent competition between an aphid and its parasitoid. First International Entomophagous Insects Conference, Minneapolis, MN.

Dieckhoff, C. & G.E. Heimpel. 7/2009. Determinants of the field oviposition rate of the soybean aphid parasitoid Bindoxys communis (Hymenoptera: Braconidae). First International Entomophagous Insects Conference, Minneapolis, MN.

Chacon, J.M., M.K. Asplen & G.E. Heimpel. 11/2009. The effect of an aphid-resistant soybean genotype on intraguild predation of a soybean aphid parasitoid. Annual Meeting of the Entomological Society of America, Indianapolis, IN. Student Competition Oral Presentation.

Asplen, M.K., J.M. Chacon* & G.E. Heimpel. 11/2009. Open-field dispersal of a soybean aphid parasitoid in response to host plant resistance. Annual Meeting of the Entomological Society of America, Indianapolis, IN. Oral presentation.

Mohl, E.K. & G.E. Heimpel. 11/2009. Bottom-up and top-down factors affecting oleander aphid (Aphis nerii) population dynamics. Annual Meeting of the Entomological Society of America, Indianapolis, IN. Poster presentation.

Asplen, M.K. & G.E. Heimpel. 11/2009. Parasitism of fall stages of the soybean aphid (*Aphis glycines*) by the parasitoid Binodoxys communis on buckthorn. Annual Meeting of the Entomological Society of America, Indianapolis, IN. Poster presentation.

2010

Heimpel, G.E. & P. Mason. 5/2010. The relationship between safety and efficacy in biological control. Presentation at IOBC meeting in Niagara Falls.

Mohl, E.K. & G.E. Heimpel. 9/2010. A potential tradeoff between direct and indirect defenses in plants. Presentation at Ecology of Aphidophaga 11 meeting in Perugia, Italy.

Hoelmer, K.A., K.R. Hopper & G.E. Heimpel. 9/2010. Foreign exploration and diversity of soybean aphid parasitoids in Asia. Presentation at Ecology of Aphidophaga 11 meeting in Perugia, Italy.

Hopper, K.R., Hoelmer K.A. & G.E. Heimpel. 9/2010. Evaluation of host specificity of aphelinid parasitoids of soybean aphid: implications for design of host range tests. Presentation at Ecology of Aphidophaga 11 meeting in Perugia, Italy.

Gardiner, M.M., D.A. Landis, M.E. O'Neal, C. Gratton & G.E. Heimpel. 9/2010. Landscape composition and heterogeneity influence predator abundance and biocontrol services in North-central U.S. soybean fields. Presentation at Ecology of Aphidophaga 11 meeting in Perugia, Italy.

Dieckhoff, C. & G.E. Heimpel. 9/2010. Factors affecting the host choice behavior of the soybean aphid parasitoid *Binodoxys communis*. Presentation at Ecology of Aphidophaga 11 meeting in Perugia, Italy.

Kaiser, M.C. & G.E. Heimpel. 9/2010. Effects of *Lysiphlebus orientalis* Stary parasitism on *Aphis glycines* Matsumura reproduction. Presentation at Ecology of Aphidophaga 11 meeting in Perugia, Italy. Poster presentation.

Dieckhoff, C. & G.E. Heimpel 12/2010. What factors affect host choice decisions of the soybean aphid parasitoid *Binodoxys communis*? Presentation at Annual Meeting of the Entomological Society of America in Sand Diego, CA. Student competition.

Dieckhoff, C. & G.E. Heimpel 12/2010. Habitat fidelity and risk of non-target impacts of the soybean aphid parasitoid *Binodoxys communis*. Presentation at Annual Meeting of the Entomological Society of America in Sand Diego, CA. Poster presentation.

Asplen, M.K. & G.E. Heimpel. 12/2010. Heteroecy and classical biological control: insights from the soybean aphid (*Aphis glycines*) and its braconid parasitoid, *Binodoxys communis*. Presentation at Annual Meeting of the Entomological Society of America in Sand Diego, CA.

2011

Asplen, M.K. & G.E. Heimpel 3/2011. Mars and Venus revisited: divergent sex-specific dispersal patterns in an imported biological control agent. Presentation at North Central Branch meeting of the Entomological Society of America meeting in Minneapolis, MN.

Mohl, E.K. & G.E. Heimpel 3/2011. Host plant species affects the preference and performance of the generalist aphid predator *Aphidoletes aphidimyza*. Presentation at North Central Branch meeting of the Entomological Society of America meeting in Minneapolis, MN. Student competition; **awarded 3rd place.**

Kaiser, M.C. & G.E. Heimpel 3/2011. Unexpected risk: how parasitoid-induced maternal effects may upset biological control. Presentation at North Central Branch meeting of the Entomological Society of America meeting in Minneapolis, MN. Student competition

Asplen, M.K. & G.E. Heimpel 11/2011. Effects of *Hamiltonella defensa* infection on parasitism of the cowpea aphid (*Aphis craccivora*) by aphidiine braconid parasitoids. Presentation at Annual meeting of the Entomological Society of America meeting in Reno, NV.

Carter, M., M.K. Asplen & G.E. Heimpel 11/2011. Functional response of the soybean aphid parasitoid *Binodoxys communis*. Presentation at Annual meeting of the Entomological Society of America meeting in Reno, NV. Student competition.

2012

Mohl, E., N. Desneux & G.E. Heimpel 7/2012. Introduced parasitoid population exhibits both local adaptation and reduced performance. Presentation at Evolution Meeting, Ottowa Canada.

Kosmala, M., G.E. Heimpel & G.D. Tilman 8/2012. Biological control of annual crop pests provided by mixed prairie of varying diversity. Presentation at Annual meeting of the Ecological Society of America meeting in Portland, OR.

Asplen, M.K. & G.E. Heimpel 11/2012. On the generality of defensive symbiosis by Hamiltonella defensa in the cowpea aphid, *Aphis craccivora*. Oral presentation at Annual Meeting of the Entomological Society of America meeting in Knoxville, TN.

Carter, M.E., M.K. Asplen & G.E. Heimpel 11/2012. Evidence for a domed functional response in the soybean aphid parasitoid *Binodoxys communis*. Oral presentation at Annual Meeting of the Entomological Society of America meeting in Knoxville, TN (student competition).

Hopper, K.R., S.M. Prager & G.E. Heimpel 11/2012. Is parasitoid host specificity dynamic? Oral presentation at Annual Meeting of the Entomological Society of America meeting in Knoxville, TN.

Kaiser, M.C. & G.E. Heimpel 11/2012. Sibling rivalry gone mad! Can a parasitoid alter competition between aphid embryos? Oral presentation at Annual Meeting of the Entomological Society of America meeting in Knoxville, TN (student competition).

Kaser, J.M. & G.E. Heimpel 11/2012. *Aphelinus certus*: Minnesota's latest invasive species or biocontrol agent? Oral presentation at Annual Meeting of the

Entomological Society of America meeting in Knoxville, TN (student competition).

Peterson, J.A., J.O. Eckberg, G.A. Johnson & G.E. Heimpel 11/2012. Diversified bioenergy plantings to enhance ecosystems services: biological control of soybean aphid. Oral presentation at Annual Meeting of the Entomological Society of America meeting in Knoxville, TN.

2013

Kaiser, M.C. & G.E. Heimpel 6/2013. Compensatory response in soybean aphid to parasitism by the aphidiine braconid *Lysiphlebus orientalis*. Third International Entomophagous Insects Conference, Orford, Quebec, Canada.

Kaser, J.M. & G.E. Heimpel 6/2013. Linking risk and efficacy in biological control host-parasitoid models. Third International Entomophagous Insects Conference, Orford, Quebec, Canada.

Carter, M.E., G.E. Heimpel & M.A. Asplen 6/2013. A domed functional response in the soybean aphid parasitoid *Binodoxys communis*. North Central Branch of the Entomological Society of America meeting, Rapid City, SD (student poster competition).

Kaser, J.M. & G.E. Heimpel 9/2013. Risk and efficacy in biological control: the introduction of *Aphelinus certus* (Hymenoptera: Aphelinidae) in North America. International Symposium: Ecology of Aphidophaga 12. Belgrade, Serbia.

Kaiser, M.C. & G.E. Heimpel 9/2013. Can aphid alarm pheromones induce changes in conspecific aphid reproductive rates? International Symposium: Ecology of Aphidophaga 12. Belgrade, Serbia.

Desneux, N., **A. Biondi**, E. Mohl, G.E. Heimpel 11/2013. Back in its native area: Comparative analysis of host range of *Lysiphlebus testaceipes* between a local strain and one introduced into Europe 40 years ago. National Entomological Society of America, Austin, TX (poster presentation).

Kaser, J.M. & G.E. Heimpel 11/2013. Interactions of a 'risky' biological control agent with target and non-target aphids. National Entomological Society of America, Austin, TX.

Mohl, E. & G.E. Heimpel 11/2013. Experimental Evolution of parasitoid performance on two aphid hosts. National Entomological Society of America, Austin, TX (student poster competition). *First Place Winner

2014

Kaser, J.K., N. Padowski, J. Peterson & G.E. Heimpel. 1/2014 Soybean aphid research – Biological control using parasitoid wasps. MN AgExpo; Mankato MN. Poster presentation.

Trahn, A.K., A.R. Stephens, D.M. Lagos, J.A. Peterson, J.M. Kaser & G.E. Heimpel 3/2014. Molecular identification of hitch-hiking parasitoids in migratory aphids from the Midwest suction trap network. North Central Branch of the Entomological Society of America Annual Meeting; De Moines, IA. Poster

presentation.

Heimpel, G.E., K.R. Hopper, J.S. Dregni & N. Padowski. 8/2014. Asian parasitoids of soybean aphid in the U.S. *Aphelinus certus* and *A. glycinis*. North Central Soybean Research Program Soybean Aphid Capstone Event. Poster Presentation.

Bulgarella, M. & G.E. Heimpel 11/2014. Community structure of the parasitic *Philornis* fly in Trinidad. National Entomological Society of America meeting, Portland, OR.

Kaiser, M.C. & G.E. Heimpel 11/2014. Fecundity compensation by caged soybean aphid (Aphis glycines) populations does not prevent eventual suppression by the parasitoid *Lysiphlebus orientalis*. National Entomological Society of America meeting, Portland, OR (student competition).

Kaser, J.M. & G.E. Heimpel 11/2014. Host range, apparent competition, and biological control of the soybean aphid. National Entomological Society of America meeting, Portland, OR (student competition).

Plecas, M., J.O. Eckberg, J.M. Kaser, I. Lane, G.A. Johnson & G.E. Heimpel. 11/2014. Effect of bioenergy crops in soybean fields on abundance and diversity of pollinators. National Entomological Society of America meeting, Portland, OR.

2015

Gray, H.L., G.E. Heimpel & D.A. Andow. 9/2015. The effect of ecosystem simplification on arthropod predation in the twin cities foodshed. Fourth International Entomophagous Insects Conference. Malaga, Spain. Poster presentation.

Dregni, J. & G.E. Heimpel. 11/2015. Comparative control of soybean aphid by three parasitoid wasps. National Entomological Society of America meeting, Minneapolis, MN.

Kaiser, M.C. & G.E. Heimpel. 11/2015. Reproduction by parasitized aphids: Just a drop in the bucket or enough to make a splash? National Entomological Society of America meeting, Minneapolis, MN. Student Competition.

Kaser, J & G.E. Heimpel. 11/2015 Host phylogeny and parasitism by *Aphelinus certus*. National Entomological Society of America meeting, Minneapolis, MN. Student Competition.

Matos, M.C.B., G.E. Heimpel, M. Bulgarella & M. Venzon. 11/2015. Diet breadth of the aphid predator *Chrysoperla rufilabris* (Neuroptera: Chrysopidae). National Entomological Society of America meeting, Minneapolis, MN. Poster Presentation.

Mohl, E., G. Kern & G.E. Heimpel. 11/2015. Can predation explain variation in plant defense? National Entomological Society of America meeting, Minneapolis, MN.

Plecas, M., J.A. Peterson, J.O. Eckberg, G.A. Johnson & G.E. Heimpel. 11/2015 Do floral resources of bioenergy crops improve sugar status of natural enemies of soybean aphid? National Entomological Society of America meeting, Minneapolis, MN.

Vyas, D., R. Paul, G.E. Heimpel & P.J. Ode. 11/2015. Damaged goods: how *Cotesia glomerata* responds to hosts parasitized by its competitor, *C. rubecula*. National Entomological Society of America meeting, Minneapolis, MN. Student Competition.

Weis, J.J., P.J. Ode & G.E. Heimpel. 11/2015. Theoretical support for balancing selection and reduced diploid male production in multiple-locus complementary sex determination. National Entomological Society of America meeting, Minneapolis, MN.

2016

10/2016 Kaiser**, M.** & G.E. Heimpel. Transgenerational fecundity compensation in the aphid *Aphis craccivora* in response to parasitism by two competing parasitoids. International Congress of Entomology, Orlando, FL, USA.

2017

6/ 2017 **J. Miksanek** & G.E. Heimpel. Parasitism rate and percent parasitism in stage-classified matrix models: an example of soybean aphid and *Aphelinus certus* (Hymenoptera: Aphelinidae). Annual Meeting of the North Central Branch of the Entomological Society of America, Indianapolis, IN, USA.

6/ 2017 **R.A. Boulton** & G.E. Heimpel. Mind the gap: the evolution of oviposition site and specialization in chalcid wasps. Society for the Study of Evolution Annual Meeting (poster presentation).

7/2017 **R.A. Boulton,** M. Bulgarella, I. Ramirez, C.E. Causton & G.E. Heimpel. Management of the invasive avian parasitic fly, *Philornis downsi*, in the Galapagos Islands: is biological control a viable option? Conference on Island Invasives, Dundee, Scotland.

2018

3/2018 **J. Dregni** & G.E. Heimpel. Susceptibility of *Aphelinus* parasitoids to neonicotinoid seed treatments in Minnesota soybean fields. Annual Meeting of the North Central Branch of the Entomological Society of America, Madison, WI, USA.

4/2018: **J. Dregni**, J.A. Peterson, K. Welch, N. Padowski & G.E. Heimpel. Promoting sustainable biological control of the soybean aphid: the effect of biodiversity, predation, and overwintering on *Aphelinus* parasitoids in North America. SARE Conference, St. Louis, MO, USA.

8/2018. **C. Barros**, M. Bulgarella, G. Brito, G.E. Heimpel, M. Quiroga. Philornis, moscas parasitas de aves en Cerro Blanco. Contributed presentation at the Ecuadorian Ornithological Conference, Arenillas, Ecuador.

10/2018. **Miksanek J.R.** & G.E. Heimpel. Evaluating the risks and benefits of *Aphelinus certus*, an introduced enemy of soybean aphid, in North America: Integrating ecosystem-level effects into the decision-making process. IOBC-WPRS Working Group Meeting [Benefits and risks of exotic BCA]. Ponta Delgada, Açores, Portugal. September 2018.

10/2018 **Christianson, L.D.E**., C.M. Stenoien, G.E. Heimpel & K.R. Hopper. Laboratory measures as an initial assessment of Aphelinus spp. overwintering ability. Upper Midwest Invasive Species Conference. Rochester, MN. Poster presentation.

10/2018. **Dregni, J.S.**, K. Welch, G.E. Heimpel, J.M. Kaser & P. Glogoza. Biological control of soybean aphid: impacts of neonicitinoid seed-treatments and aphid-resistant soybeans. Upper Midwest Invasive Species Conference. Rochester, MN. Poster presentation.

10/2018 **Marek-Spartz, M**., G.E. Heimpel, R. Becker & K. Marek-Spartz. Generations: Understanding weed-herbivore interactions using Python. Upper Midwest Invasive Species Conference. Rochester, MN. Poster presentation.

10/2018 **Miksanek J.R.** & G.E. Heimpel. Understanding the theoretical and ecological influence of the parasitoid *Aphelinus certus* on soybean aphid. Upper Midwest Invasive Species Conference. Rochester, MN.

10/2018 **Miksanek J.R**., G.E. Heimpel & J. Kaser. Infiltration of native prairie habitat by the Asian parasitoid *Aphelinus certus* (Hymenoptera: Aphelinidae). Upper Midwest Invasive Species Conference. Rochester, MN. Poster presentation.

10/2018 **Stenoien C,** Christianson, L., Welch K, Hopper, K.R., & Heimpel G.E. The overwintering biology of *Aphelinus certus*, an adventive parasitoid of soybean aphid. Upper Midwest Invasive Species Conference. Rochester, MN.

11/2018. J. Dregni, K. Welch, M. Ferrer-Suay & **G.E. Heimpel**. Parasitoids in North American soybean fields: The effect of neonicotinoid seed treatments and hyperparasitism on soybean aphid biological control. Poster presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

11/2018. **I. Ramirez**, G.E. Heimpel & C.E. Causton. Behavior and interactions of the parasitic fly *Philornis downsi* with the Galapagos flycatcher in the Galapagos Islands. Poster presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

11/2018. **I. Ramirez** & G.E. Heimpel. Pairing up: testing the specificity of *Philornis downsi* parasitoids in mainland Ecuador using a pairing field technique. Three-minute student presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

11/2018. **C. Stenoien**, L. Christianson, K. Welch, K. Hopper & G.E. Heimpel. The overwintering biology of *Aphelinus certus*, an adventive parasitoid of soybean aphid. Oral presentation at the Annual meeting of the Entomological Society of America, Vancouver, Canada.

<u>2019</u>

11/2019. **J. Dregni**, A. Casigraghi, M. Ferrer Suay & G.E. Heimpel. Hyperparasitoids on soybean aphids in North America: thelytoky in the hyperparasitoid *Alloxysta brevis* cured with antibiotics. Poster presentation at the Annual meeting of the Entomological Society of America, St. Louis, MO.

11/2019. **M. Marek-Spartz**, G.E. Heimpel & R. Becker. Climate match of two biological control agents (*Ceutorhynchus spp.*) prioritized for release to control garlic mustard (*Alliaria petiolata*) in North America. Poster presentation at the Annual meeting of the Entomological Society of America, St. Louis, MO.

<u>2020</u>

11/20. **J.R. Miksanek** & G.E. Heimpel. The parasitoid *Aphelinus certus* as a biological control agent of the soybean aphid. Upper Midwest Invasive Species Conference; Virtual.

2021

5/2021. **P. Rueda-Cediel** & G.E. Heimpel. Population dynamics of *Philornis downsi* in the Galapagos Islands: a matrix modeling approach and applications for biological control. Contributed Presentation at the Fifth Workshop of the International *Philornis* Working Group (May 4-6, 2021; virtual).

5/2021. **C.C. Lehnen**, G.E. Heimpel, B.J. Sinclair, C.E. Causton. Rearing sources of endemic and native Galapagos Diptera for non-target testing of *Philornis downsi* control agents. Contributed Presentation at the Fifth Workshop of the International *Philornis* Working Group (May 4-6, 2021; virtual).