2016 Curriculum Vitae

NAME: Scott H. McArt
DEPARTMENT/UNIT: Entomology
TITLE: Research Scientist
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EDUCATION

Postdoctoral, Entomology, 2014	UMass-Amherst
PhD, Entomology, 2012	Cornell University
MS, Biological Sciences, 2006	University of Alaska-Anchorage
BA, Environmental and Evolutionary Biology, 2001	Dartmouth College

ACADEMIC RANK

Research Scientist, Sept. 2014-present

DEPARTMENTAL / UNIT PROGRAM AREA

Pollinator ecology and health, 100% research

AREAS OF EXPERTISE

Plant-pollinator interactions, community ecology, disease ecology, chemical ecology, evolutionary ecology, pollinator-pesticide interactions

PROFESSIONAL EXPERIENCE

2014-present	Research Scientist, Department of Entomology, Cornell University
2012-2014	Postdoctoral Researcher, Pollination Ecology Laboratory, Department of Biology, University of Massachusetts, Amherst
2010-2011	Teaching Assistant, Department of Entomology, Cornell University
2009-2010	Research Assistant, Department of Entomology, Cornell University
2007-2009	Teaching Assistant, Department of Entomology, Cornell University
2006-2007	Teaching Assistant, Undergraduate Biology Program, Cornell University
2005-2006	Consultant, 3PP Natural Resource Consulting, Palmer, Alaska
2004-2005	Teaching Assistant, Department of Biology, University of Alaska, Anchorage
2003-2004	Adjunct Instructor, Department of Biology, University of Alaska, Anchorage
2001-2003	Technician, Nutritional Ecology Laboratory, Department of Biology, University of Alaska, Anchorage

HONORS AND AWARDS

USDA NIFA Postdoctoral Fellowship, 2012-2014
Palmer Fellowship, Cornell Entomology, 2012

Wearers of the Green, Dartmouth College Hall of Fame, 2003

GRANT SUPPORT

Active Grants and Contracts

McArt (PI), Adler, Ellner, Irwin, McFrederick, Myers (Co-PIs) 10/1/16-9/30/21
1 R01 GM122062-01 $2,177,105
NIGMS/NIH Ecology and Evolution of Infectious Disease
"Transmission networks in trait-based communities: Implications for disease in bees"
The goal of this project is to understand how pathogen transmission and disease spread occur in complex communities of bees that visit shared transmission venues (flowers).

McArt (PI), Danforth, Mullen (Co-PIs) 07/01/16-06/30/17
NYS Pollinator Protection Plan, Cornell Appropriation $150,063
NYS Environmental Protection Fund
"Assessing the importance of pesticides, pathogens and management practices to improve the health of wild and managed pollinators in New York"
This project has two goals: 1) assessing pathogen prevalence and pesticide exposure in wild bees across New York, and 2) work with beekeepers to assess the risk of interactions between pesticides and beekeeper management practices for parasites/pathogens.

McArt (PI) 10/01/16-09/30/19
USDA Multi-State Federal Capacity Funds $90,000
"Pesticide impacts on strawberry production: Balancing pest control with pollination services" The goal of this project is to understand how commonly used pesticide sprays impact pollination and fruit quality in a crop that relies on pollinators, but also has important fruit pests and pathogens.

McArt (Co-PI), Mullen (PI) 01/15/16-12/31/16
CCE Jefferson County $28,910
Northern New York Agriculture Development Program
"Improving beekeeper management practices to increase pollinator health and honey production in northern New York" The goal of this project is to understand how parasite/pathogen levels and honey production are related to management practices of commercial and hobby beekeepers in northern New York.

McArt (Co-PI), Nault (PI) 10/01/15-09/30/18
NYG-802 NC1173 $90,000
USDA Multi-State Federal Capacity Funds
"Impacts of landscape and farming practices on bumble bee colony health and success" In this project, we are working to understand how landscape (urban vs. natural area) and farming practices (organic vs. conventional) are related to bumble bee pathogen loads, pesticide exposure and colony performance.

McArt (PI) 04/01/15-03/31/17
OAR 15 008 $119,999
New York Farm Viability Institute
"Assessing the impact of pesticides on honey bee health in New York"
The goal of this project is to understand the relative importance of pesticides, pathogens/parasites, diet and landscape complexity on the performance of honey bee colonies in New York.

Pending Grants and Contracts

McArt (PI) 10/01/16-09/30/19
USDA Federal Capacity Funds $90,000
"Consequences of pathogen spillover from managed to wild bees"
Provisionally funded by USDA NIFA; final approval August 2016
The goal of this project is to understand how pathogen spillover from managed honey bees occurs, and when negative impacts on wild bee communities are likely.

McArt (PI), Jander (Co-PI) 08/01/16-10/31/17
ACSF Academic Venture Fund $114,645
"Bee-friendly corn? Mapping genetic variation for neonicotinoid uptake into vegetative vs. reproductive tissues in maize"

McArt (Co-PI), Jander (PI) 03/01/17-02/28/20
USDA Undergraduate Research & Extension Experiential Learning Fellowships $299,324
"Undergraduate research: Plant biotic interactions in agricultural systems"

Previous Grants and Contracts

McArt (PI) 04/01/15-03/31/16
North American Pollinator Protection Campaign $10,000
"Linking pesticide stress to disease prevalence in a network of controlled, experimental honey bee hives"

McArt (PI) 09/01/12-08/31/14
USDA NIFA Postdoctoral Fellowship $129,955
"The importance of pollinators and plant defenses for infection of blueberry (*Vaccinium sp.*) by the mummy berry fungus (*Monilinia vaccinii-corymbosi*)"

RESEARCH AND ADVISING

RESPONSIBILITIES Current

Responsibilities

Major Advisor

Kaitlin Deutsch, PhD student, Cornell Entomology (starting January 2017)

- Awarded NSF Graduate Research Fellowship (2018-2021)
- Awarded Cornell Fellowship (2017-2018)

Katherine Urban-Mead, PhD student, Cornell Entomology (starting August 2016) *Co-advised with Dr. Bryan Danforth*

- Awarded NSF Graduate Research Fellowship (2016-2019)

Nelson Milano, Masters student, Cornell Entomology (starting August 2016) Laura Figueroa, PhD student, Cornell Entomology (2015-present)

- Awarded NSF Graduate Research Fellowship (2016-2019)
- Awarded CALS Deans Excellence Graduate Fellowship (2015-2016)

Minor Committee Member

Talya Shragai, PhD student with Dr. Laura Harrington, Cornell Entomology (2016-

present) Matt Boucher, PhD student with Dr. Greg Loeb, Cornell Entomology (2015-present)

- Awarded NSF Graduate Research Fellowship (2016-2019)

Mary Centrella, PhD student with Drs. Bryan Danforth and Katja Poveda, Cornell Entomology (2015-present)

- Awarded NSF Graduate Research Fellowship (2015-2018)

Giuseppe Tumminello, MS student with Dr. Melissa Fierke, SUNY ESF (2015-present)

Lab/Field Technicians
Nelson Milano, Laboratory manager (2014-present)
Ashley Fersch, Temporary technician (2015-present)

Undergraduate Researchers
David Lewis, Biology (2016-present)
Trebor Hall, Entomology (2016-present)

High School Research Interns
Shuyun (Alina) Xiao (summer 2016)

- Awarded Cornell Research Apprenticeship in Biological Sciences

Past Responsibilities

Lab/Field Technicians
Sarah Bluher, Honey bee projects manager (2015-2016)

Undergraduate Researchers Lauren Truitt, Biology (2014-2016) Nolan Amon, Entomology (2016) Joshua Roberts, Biology (2015-2016) Sally Compton, Biology (2014-2015)
Emily Wafler, Environmental Science and Sustainability (2014-2015) Rosie Nagele, Biology (2015)
Carlee Roberts, Environmental Science and Sustainability (2015)
Tim Jalbert, Biology (2015)

High School Research Interns
Ben Losey (summer 2015)

EXTENSION/OUTREACH RESPONSIBILITIES (no formal extension responsibilities)

Extension Professionals Supervised
Emma Mullen, Honey Bee Extension Associate, Department of Entomology, Cornell University (2015-present)

Recent Seminars for Lay Audiences
"Meeting NYS beekeeper needs via research and extension at Cornell," Empire State Honey Producers Association Annual Meeting, Syracuse, NY (Nov. 2015)

"Synopsis of Cornell research on pollinators," NYS IPM Pollinator Meeting, Albany, NY (Sept. 2015)

"The need for research on factors contributing to honey bee losses in New York," Empire State Honey Producers Association Annual Meeting, Syracuse, NY (Nov. 2014)

Other Relevant Extension/Outreach Activities

Science Advisor to "Honey bees and native pollinators" Roundtable with Senator O'Mara, Albany, NY (May 24, 2016) https://www.nysenate.gov/newsroom/press-releases/thomas-f-omara/omara-hosts-honeybees-native-pollinators-roundtable-albany

NYS Department Agriculture & Markets Pollinator Protection Plan Task Force Science Advisor (2015-present)

Lobbying visit with 9 NY State Legislators and Senators in Albany, NY regarding funding for CALS honey bee research and extension (Jan. 16, 2016)

Host of 'Pollinator Research at Cornell,' during CALS visit by 12 NYS Legislators, Senators and staff (Nov. 5, 2015)

Host of 'Pollinator Research at Cornell,' during CALS visit by NYS Comptroller Thomas DiNapoli and staff (April 17, 2015)

Annual participant in Entomology Department's "Insectapalooza" (2014-present)

Answering phone calls/email requests for information from citizens (26 individual responses in 2015-2016

Occasional editor and contributor to Cornell Pollinator Network extension website (2015- present): http://pollinator.cals.cornell.edu/

Resource for Media

2016

- Interview by Krishna Ramanujan, staff writer for the Cornell Chronicle, regarding pathogen transmission among bees (June 2016)
- Interview by Matt Hayes, staff writer for the Cornell Chronicle, regarding honey bee research and the New York State Pollinator Protection Plan (June 2016)
- Resource for Taylor Watson, staff writer for The Daily Orange, regarding factors contributing to pollinator declines (March 2016): http://dailyorange.com/2016/03/researcher-explains-decline-in-bee-population-at- suny-esf-lecture
- Interview by Ivy Reynolds, Assistant Director of Public Policy for NY Farm Bureau, for Farm Bureau 'Grassroots' April newsletter featuring New York's pollinators (March 2016)
- Resource for Sue Garing, writer for the Empire State Honey Producers newsletter, regarding the benefits of registration for New York beekeepers (Jan. 2016)

2015

- Interview by Brian Nearing, staff writer for the Albany Times Union, on the NYS Pollinator Protection Plan (Nov. 2015)
- Resource for Sue Garing, writer for the Empire State Honey Producers newsletter, regarding pesticide threats to been in New York (Oct. 2015)

- Interview by Azure Gilman, staff writer for Al Jazeera America, on the growing number of hobby beekeepers in New York (Aug. 2015)
- Interview by C. Claiborne Ray, columnist for the New York Times, on how bees survive the winter (Jan. 2015): http://www.nytimes.com/2015/01/27/science/earth/27qna.html?_r=0

2014

- Interview by CBS Boston radio on pathogen transmission by and among bees (June 2014)
- Interview by UMass media relations on pathogen transmission and bees (June 2014): http://www.umass.edu/researchnext/floral-transmitters

TEACHING RESPONSIBILITIES (no formal teaching responsibilities)

Organizer, Pollinator Reading Group, Cornell University (Fall 2015, Spring 2016) Guest Lecturer

Integrated Pest Management: *Bee biology and health* (1 lecture and lab), Cornell University (Spring 2016)

Honey Bee Biology: *Pesticides, pathogens and pollinator health* (1 lecture), Cornell University (Fall 2015)

Experimental Design in Ecology: *Common gardens, randomized blocks and observer bias* (1 lecture), UMass-Amherst (Spring 2014)

Chemical Ecology: *Plant phenolics* (1 lecture), Colorado State University (Spring 2014); *Plant-herbivore coevolution* (2 lectures) and *Plant-pathogen coevolution* (1 lecture), Cornell University (Fall 2011)

Introductory Entomology: *Insect and plant diversity* (1 lecture), *The ecology and evolution of herbivory* (1 lecture), Cornell University (Spring 2010, Spring 2012)

Insect Ecology: *Insect diversity* (1 lecture), Cornell University (Spring 2010, Spring 2012)

Instructor, 'Writing in the Majors' section of Ecology and the Environment (22 lectures/ discussions), Cornell University, Fall 2011. Blog (contains all interactive written assignments): http://blogs.cornell.edu/bioee1610/

Tutorial Instructor, Introduction to modern meta-analysis using MetaWin, Colorado State University (Spring 2014)

Mini-course Instructor, "Beautiful Bugs!" Graduate Student School Outreach Program, Caroline Elementary School (April-May, 2010), Dryden Elementary School (April-May, 2011), Cassavant Elementary School (May, 2012)

COMMITTEE ASSIGNMENTS

State

NYS Apiary Industry Advisory Committee Science Advisor (2015-present)

University

Cornell Undergraduate Beekeeping Club Faculty Advisor (2016-present)

Departmental

Honey Bee Extension Associate Advisory Committee (2015-

present) Griswold Endowment Committee (2015-2017)
Entomology Space Committee (2015)
Honey Bee Extension Associate Search Committee (2014-2015)

REPRESENTATIVE PROFESSIONAL ACTIVITIES

Contributed Oral Session Organizer, "Probing the microbial world of flowers: Impacts on plants and animals," symposium comprised of 10 academic and government researchers. Attendance: ~200 audience members. Ecological Society of America (Sacramento, CA, 2014)

Poster Presentation Judge, Front Range Student Ecology Symposium (Colorado State University, 2013)

Grant Reviewer, David R. Atkinson Sustainable Biodiversity Fund (Cornell, 2011), NSF IGERT in Biogeochemistry and Biocomplexity Training Grants Program (Cornell, 2009,
2010)

Peer Reviewer, Austral Ecology (1), Basic and Applied Ecology (1), Biological Invasions (1), Canadian Journal of Zoology (1), Ecological Entomology (3), Ecological Applications (2), Ecology (6), Ecology Letters (2), Functional Ecology (2), Journal of Applied Ecology (1), Oecologia (2), Oikos (1), Plant Ecology & Diversity (1)

Invited Speaker Host, Dr. Douglas Futuyma, SUNY Stony Brook (2010), Dr. Jason Fridley, Syracuse University (2010), Dr. Gina Wimp, Georgetown University

(2008) Administrator, Cornell pollinator list serve (POLLINATOR-L@cornell.edu)

PROFESSIONALASSOCIATIONS

Entomological Society of America
Ecological Society of America
International Society for Chemical Ecology

PRESENTATIOS

Invited Talks

International Congress of Entomology, "Floral scent mimicry and transmission of a pollinator-vectored plant pathogen." Orlando, FL, Sept. 2016

Department of Environmental & Forest Biology, SUNY ESF, "Ecological drivers of pollinator health, performance and declines." Syracuse, NY, March 2016

Empire State Honey Producers Association Board of Directors Annual Meeting, "Benefits of beekeeper registration in New York: A research and extension perspective." Syracuse, NY, Feb. 2016

Cornell Department of Entomology Jugatae Graduate Student Symposium, "Ecological drivers of pollinator health, performance and declines." Ithaca, NY, Jan. 2016

Empire State Honey Producers Association Annual Meeting, "Meeting NYS beekeeper needs via research and extension at Cornell." Albany, NY, Nov. 2015

North American Pollinator Protection Campaign, "Linking pesticide stress to

disease prevalence in a network of controlled, experimental honey bee hives." Washington, DC, Oct. 2015

NYS IPM Pollinator Meeting, "Synopsis of Cornell research on pollinators." Albany, NY, Oct. 2015

Department of Entomology, Purdue University, "Pollinators and pathogens: The darker side of pollination." West Lafayette, IN, Sept. 2015

NYS Apiary Industry Advisory Committee, "Project update on 'Assessing the impact of pesticides on honey bee health in NY.'" Albany, NY, July 2015

Department of Entomology, Cornell University, "Pollinators and pathogens: The darker side of pollination." Ithaca, NY, Jan. 2015

Empire State Honey Producers Association Annual Meeting, "The need for research on factors contributing to honey bee losses in New York." Syracuse, NY, Nov. 2014

Department of Forestry and Rangeland Stewardship, Colorado State University, "From moose to microbes: Plant phenolics as modulators of herbivory, pollination and disease." Fort Collins, CO, May 2014

Department of Entomology, Cornell University, "From moose to microbes: Plant phenolics as modulators of herbivory, pollination and disease." Ithaca, NY, March 2014

Department of Entomology and Nematology, University of California, Davis, "From moose to microbes: Plant phenolics as modulators of herbivory, pollination and disease." Davis, CA, March 2014

Department of Biology, University of Louisville, "From moose to microbes: Plant phenolics as modulators of herbivory, pollination and disease." Louisville, KY, Feb. 2014

Second International *Microbotryum* Meeting, Amherst College, "Comparative biology of pollinator-vectored plant pathogens." Amherst, MA, May 2013

Department of Bioagricultural Sciences and Pest Management, Colorado State University, "Plant genotypic diversity and its influence on arthropod communities and ecosystem functioning." Fort Collins, CO, May 2012

Department of Entomology, Washington State University, "Plant genotypic diversity and its influence on arthropod communities and ecosystem functioning." Pullman, WA, Apr. 2012

Patton Symposium on Insect Nutrition, Cornell University, "Plant genotypic diversity reduces the rate of consumer resource utilization." Ithaca, NY, Feb. 2011

Cornell Entomology Department Merger, "A direct comparison between the effects of plant genotypic diversity on arthropod communities and ecosystem functioning." Ithaca, NY, Jan. 2010

*Contributed Talks and Posters (*presenter)*

McArt, S. H., T. Miles, C. Rodriguez-Saona*, A. Schilder, L. S. Adler and M. Grieshop.

Floral scent mimicry and transmission of a pollinator-vectored plant pathogen. Gordon Conference for Plant Volatiles. Ventura, CA, Jan. 2016

Figueroa, L. L.*, H. Connelly and S. H. McArt. Pathogen transmission in plant-pollinator networks. Cornell Department of Entomology Jugatae Graduate Student Symposium, Ithaca, NY, Jan. 2016

Tumminello, G.*, T. A. Volk, S. H. McArt, and M. K. Fierke. Pollinator diversity associated with willow biomass crops. Entomological Society of America, Portland, OR, Nov. 2015

Giacomini, J.*, R. E. Irwin, S. H. McArt, and L. S. Adler. Influence of pollen diet on parasite infection in bumble bees. Ecological Society of America, Baltimore, MD, Aug. 2015

Connon, S. J.*, S. H. McArt, R. E. Irwin and L. S. Adler. Fungicide impacts on the pathogen load of a bumble bee gut parasite. Ecological Society of America, Baltimore, MD, Aug. 2015

McArt, S. H.*, C. Urbanowicz, R. E. Irwin, and L. S. Adler. Landscape predictors of pathogen prevalence in bumble bees. Ecological Society of America, Baltimore, MD, Aug. 2015

McArt, S. H.* and L. S. Adler. Chemical ecology of a pollinator-vectored plant pathogen. Ecological Society of America, Sacramento, CA, Aug. 2014

McArt, S. H.*, R. Halitschke, J-P. Salminen and J. S. Thaler. Leaf herbivory increases plant fitness via induced resistance to seed predators. Gordon Conference for Plant-Herbivore Interactions, Ventura, CA, Jan. 2013

McArt, S. H.* Mummy berry disease of blueberry. 'Twilight' Local Growers Meeting, UMass Cold Spring Orchard, Belchertown, MA, July 2012

McArt, S. H.*, R. Halitschke, J-P. Salminen and J. S. Thaler. Leaf herbivory increases plant fitness via induced resistance to seed predators. Cornell Frontiers in the Life Sciences Symposium, Ithaca, NY, March 2012

McArt, S. H.*, R. Halitschke, J-P. Salminen and J. S. Thaler. Induced resistance to seed predators via leaf herbivory: Implications for individual plants and genotypically diverse patches. Ecological Society of America, Austin, TX, Aug. 2011

McArt, S. H.* Plant genotypic diversity and its influence on arthropod communities. Cornell Entomology Undergraduate Club, Ithaca, NY, Feb. 2011

McArt, S. H.* and J. S. Thaler. Plant genotypic richness decreases arthropod evenness. Ecological Society of America, Pittsburgh, PA, Aug. 2010

McArt, S. H.*, R. Halitschke and J. S. Thaler. Jasmonate-mediated induced resistance to seed predators via leaf herbivory. Gordon Conference for Plant-Herbivore Interactions, Galveston, TX, Jan. 2010

McArt, S. H.*, R. Halitschke and J. S. Thaler. Jasmonate-mediated induced resistance to seed predators via leaf herbivory. Cornell - Penn State Chemical Ecology Symposium, Ithaca, NY, Oct. 2009

McArt, S. H.*, S. C. Cook and J. S. Thaler. Contrasting mechanisms for how plant genotypic and species diversity increase arthropod diversity. Ecological Society of America, Albuquerque, NM, Aug. 2009.

Cook, S. C.*, S. H. McArt, J. S. Thaler, and A. Agrawal. A direct comparison between plant genotypic and species diversity on ecosystem functioning. Ecological Society of America, Albuquerque, NM, Aug. 2009.

McArt, S. H.*, Cook, S. C. and J. S. Thaler. Contrasting mechanisms for how plant genotypic and species diversity increase arthropod diversity. Biogeochemistry and Environmental Biocomplexity Symposium, Ithaca, NY, Jan. 2009

McArt, S. H.* and J. S. Thaler. Plant phytochemical variation impacts plant-mediated interactions between herbivores. Cornell Ecology and Evolutionary Biology Symposium, Ithaca, NY, Jan. 2009

McArt, S. H.* and J. S. Thaler. Intraspecific plant chemical diversity and its influence on arthropod communities. Ecological Society of America, Milwaukee, WI, Aug. 2008

McArt, S. H.*, D. E. Spalinger, W. B. Collins, E. R. Schoen. 2009. Summer dietary nitrogen availability as a potential bottom-up constraint on moose (*Alces alces*) in South-central Alaska. Ecological Society of America, San Jose, CA, Aug. 2007

PUBLICATIONS (h-index: 9, i-10 index: 9, 292 citations as of 04/04/16)

In review

McArt, S. H., T. Miles, C. Rodriguez-Saona, A. Schilder, L. S. Adler, and M. Grieshop. Floral scent mimicry and vector-pathogen associations in a pseudoflower-inducing plant pathogen system. *In revision at PloS One.*

Published

Parachnowitsch, A. L., S. C. Cook-Patton and S. H. McArt. 2014. Neighbours matter: Natural selection on plant size depends on the identity and diversity of the surrounding community. *Evolutionary Ecology* 28:1139-1153.

Kaplan, I., S. H. McArt, and J. S. Thaler. 2014. Plant defenses and predation-risk differentially shape patterns of consumption, growth, and digestive efficiency in a guild of leaf-chewing insects. *PLoS One* 9:e93714.

McArt, S. H., H. Koch, R. E. Irwin, and L. S. Adler. 2014. Arranging the bouquet of disease: Floral traits and the transmission of plant and animal pathogens. *Ecology Letters* 17:624-636.
Press: http://www.natureworldnews.com/articles/6167/20140224/study-reveals-dearth- information-flowers-transmit-disease-bees.htm
http://blogs.discovermagazine.com/inkfish/2014/02/25/the-5-creepiest-ways-plant-diseases-mutate-flowers/#.Uzc7Qtw5l94
http://www.umass.edu/researchnext/floral-transmitters

McArt, S. H. and J. S. Thaler. 2013. Plant genotypic diversity reduces the rate of consumer resource utilization. *Proceedings of the Royal Society of London B*

280:20130639.

McArt, S. H., R. Halitschke, J-P. Salminen, and J. S. Thaler. 2013. Leaf herbivory increases plant fitness via induced resistance to seed predators. *Ecology* 94:966-975. Press: http://www.esa.org/plantpop/

Thaler, J. S., S. H. McArt, and I. Kaplan. 2012. Compensatory mechanisms for ameliorating the fundamental trade-off between predator avoidance and foraging. *Proceedings of the National Academy of Sciences* 109:12075-12080. Cover photo: http://www.pnas.org/content/109/30.cover-expansion

McArt, S. H., S. C. Cook-Patton, and J. S. Thaler. 2012. Relationships between arthropod richness, evenness, and diversity are altered by complementarity among plant genotypes. *Oecologia* 168:1013-1021.

Cook-Patton, S. C.*, S. H. McArt*, A. L. Parachnowitsch, J. S. Thaler, and A. A. Agrawal. 2011. A direct comparison of the consequences of plant genotypic and species diversity on arthropod communities and ecosystem function. *Ecology* 92:915-923. *Authors contributed equally.

McArt, S. H., D. E. Spalinger, W. B. Collins, E. R. Schoen, T. Stevenson, and M. Bucho. 2009. Summer dietary nitrogen availability as a potential bottom-up constraint on moose (*Alces alces*) in South-central Alaska. *Ecology* 90:1400-1411.

Capps, K. A., C. B. Turner, M. T. Booth, D. L. Lombardozzi, S. H. McArt, D. Chai, and N. G.

Hairston, Jr. 2009. Behavioral responses of the endemic shrimp *Halocardina rubra* (Malacostraca: Atyidae) to an introduced fish, *Gambusia affinis* (Actinopterygii: Poeciliidae) and implications for the trophic structure of Hawaiian Anchialine ponds. *Pacific Science* 63:27-37.

McArt, S. H., D. E. Spalinger, J. M. Kennish, and W. B. Collins. 2006. A modified method for determining tannin-protein precipitation capacity using accelerated solvent extraction (ASE) and microplate gel filtration. *Journal of Chemical Ecology* 32:1367-1377.

THESES / DISSERTATIONS

McArt, S. H. 2012. Plant genotypic diversity and its influence on arthropod communities. PhD Dissertation. Cornell University, Ithaca, NY. 154 pp.

McArt, S. H. 2007. Summer dietary nitrogen availability as a bottom-up constraint on moose in South-central Alaska. MS Thesis. University of Alaska, Anchorage, AK. 96 pp.

NON-REFEREED PUBLICATIONS

McArt, S. H. 2015. Pesticides and the threat to bees in New York. Empire State Honey Honey Producers Association Fall Newsletter, Nov. 2015.

PROFESSIONAL OVERVIEW

Dr. McArt became interested in ecology while exploring the diverse natural and agricultural areas of New York and New England as a child. His research has focused on the nutritional, chemical and disease ecology of plant-herbivore and plant-pollinator interactions. Current research projects in his laboratory are focused on understanding

factors important for declines of wild and managed bees, particularly pesticides and pathogens/parasites. Dr. McArt studies plant-pollinator interactions in the field and laboratory. He currently manages
~100 honey bee colonies and his lab is equipped for molecular (e.g. PCR for microbial pathogens) and chemical analyses (e.g. multi-residue pesticide analyses via HPLC-MS). As a Research Scientist, McArt has no formal teaching or extension responsibilities, though he enjoys teaching and interacting with growers, beekeepers and the public. He gives regular guest lectures, participates in extension activities when appropriate, and leads a "pollinator reading group" at Cornell that is attended by undergraduates, grad students, postdocs and faculty. McArt currently mentors 1 extension professional, 1 graduate student (major advisor), 4 graduate students (minor committee member), 2 technicians, 2 undergraduates and 1 high school student in the fields of entomology and ecology and evolutionary biology.