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CURRICULUM VITAE

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EDUCATION

2006 Ph.D. University of California, Davis, Population Biology

Dissertation Title: “The Evolutionary Ecology of Floral Herbivory and Floral Defense”

Dissertation advisor: Dr. Richard Karban

2004 M.S. University of California, Davis, Population Biology

2001 M.Sc. Canterbury University, Christchurch, NZ, Botany, *with distinction.*

Dissertation Title: “Population Genetics of an Important *Chionochloa* Seed Predator from New Zealand”

Dissertation advisor: Dr. Dave Kelly

1998 B.A. Carleton College, Biology, *magna cum laude*

ACADEMIC POSITIONS

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| 2006- present | Assistant Professor of Biology, Denison University, OH

<i>Courses developed:</i> Introduction to the Science of Biology, Plant Evolution and Reproduction, Plant Ecology, Evolution and Ecology |
| 2005 | Visiting Assistant Professor of Biology, Carleton College, MN.

<i>Courses developed:</i> Animal Behavior, Plant-Animal Interactions |

PEER-REVIEWED PUBLICATIONS

McCall, A.C., and C. M. Barr. Why do florivores prefer hermaphrodites over females in *Nemophila menziesii* (Boraginaceae)? *Submitted to: Oecologia*, Dec 2010

Forister, M.L., J.A. Fordyce, **A.C. McCall**, and A.M. Shapiro. 2011. Silvery blues: they came and went, a complete history of colonization and extinction. *Accepted, Journal of Insect Science*.

McCall, A.C., J.A. Fordyce. 2010. Can optimal defense theory be used to predict the distribution of plant chemical defenses? *Journal of Ecology* 98: 985-992.

McCall, A.C. 2010. Does dose-dependent petal damage affect pollen limitation in a California annual plant? *Botany* 88: 601-606.

Forister, M.L., **A.C. McCall**, N. J. Sanders, J. A. Fordyce, J.H. Thorne, J. O'Brien, D.P. Waetjen, and A.M. Shapiro. 2010. Thirty years of climate change and habitat alteration shift patterns of butterfly diversity. *Proceedings of the National Academies of Science, USA* 107: 2088-2092.

McCall, A.C. 2008. Florivory affects pollinator visitation and female fitness in *Nemophila menziesii*. *Oecologia* 155: 729-737.

Lau, J.A., **A.C. McCall**, J.W. Wright, K.F. Davies, and J.K. McKay. 2008. Edaphic factors and herbivory help define the realized niche of a native annual. *Ecology* 89: 754-762.

McCall, A. C. 2008. Population cycles in herbivores and carnivores. *In The Encyclopedia of Ecology*, Elsevier Publishing.

McCall, A.C. 2007. Petal damage, leaf damage, and gender affect fitness and flower traits in *Nemophila menziesii* (Hydrophyllaceae). *American Journal of Botany* 94: 445-450.

McCall, A.C. and R.E. Irwin. 2006. Florivory: the intersection of pollination and herbivory. *Ecology Letters* 9: 1351-1365.

Wright, J.W., Davies, K.F., Lau, J.A., **McCall, A.C.**, and J.K. McKay. 2006. Experimental verification of ecological niche modeling in a heterogeneous environment. *Ecology* 87: 2433-2439.

Karban, R., Shiojiri, K., Huntzinger, P., and **A.C. McCall**. 2006. Damage-induced resistance in sagebrush: volatiles are key to intra- and interplant communication. *Ecology* 87: 922-930.

McCall, A.C., and R. Karban. 2006. Induction of defense in *Nicotiana attenuata* flowers following leaf damage. *Oecologia* 146: 566-571.

McCall, A.C. 2006. Induced defense in *Nemophila menziesii* flowers. *Oikos* 112: 660-666.

Karban, R., M. Huntzinger, and **A.C. McCall**. 2004. The specificity of eavesdropping on sagebrush by other plants. *Ecology* 85: 1846-1852.

McCall, A. C., D. Kelly, and H.C. Chapman. 2004. Population genetics of an important *Chionochloa* seed predator from New Zealand. *New Zealand Journal of Ecology* 28: 215-224.

Linksvayer, T.A., **A.C. McCall**, R.M. Jensen, C.M. Marshall, J.W. Miner, and M.J. McKone. 2002. The function of hitchhiking behavior in the leaf-cutting ant *Atta cephalotes*. *Biotropica* 34: 93-100.

McKone, M.J., K.K. McLauchlan, E.G. LeBrun, and **A.C. McCall**. 2001. An edge effect caused by adult corn-rootworm beetles on sunflowers in tallgrass prairie remnants. *Conservation Biology* 15: 1315-1324.

Singer, S., J. Sollinger, S. Maki, J. Fishbach, B. Short, C. Reinke, J. Fick, L. Cox, **A. McCall** and H. Mullen. 1999. Inflorescence architecture: a developmental genetics approach. *The Botanical Review* 65: 385-410.

Sessions, R.A., J.L. Nemhauser, **A.C. McCall**, J.L. Roe, K.A. Feldmann, and P.C. Zambryski. 1997. ETTIN patterns the *Arabidopsis* floral meristem and reproductive organs. *Development* 124: 4481-4491.

PUBLISHED ABSTRACTS

* denotes students at time of research

McCall, A.C., J.M. Drizin*, S.D. Fettig*, and K.A. Sparks*. 2007. Phenological differences in *Vernonia gigantea* affect seed predation but not pollination success. *Journal of the Ohio Academy of Sciences* 107: A28

Singer, S.R., S.L. Maki, J. Sollinger, H. Mullen, J. Fick, **A. McCall**. 1996. Regulation of indeterminacy in pea inflorescences - evolutionary implications. *Plant Physiology* 111: 33

Singer, S.R., S.L. Maki, J. Sollinger, H. Mullen, J. Fick, **A. McCall**. 1996. Suppression of terminal flower formation in pea - evolutionary implications. *Developmental Biology* 175: 377

BOOK REVIEWS

'Encyclopedia of Evolution' Rice, S. 2007. *Plant Sciences Bulletin* 53: 133-134.

PUBLISHED POETRY

McCall, A.C. 2010. "On learning that a crater on Mercury was named after Li Bai, the Chinese poet" *Nibble*, Issue 16

McCall, A.C. 2010. "The Reed" *The New Mexico Poetry Review*

McCall, A.C. 2002. "In the Greenhouse" and "Sitting with Grandma" *Limestone Circle*, Issue 12

McCall, A.C. 2006. "Black Iris" *The Yolo Crow*, Issue 3

HONORS

2000-2004 Ford Foundation Pre-doctoral Fellowship
2000-2001 Graduate Opportunity Fellowship, UC-Davis
1999-2000 Fulbright Fellowship, U.S.- New Zealand
1998 *Phi Beta Kappa*, *Sigma Xi*, Carleton College

PRESENTATIONS

* denotes students at time of research

A.C. McCall, and J.A. Fordyce. 2010. Can Optimal Defense Theory explain patterns of intraplant chemical defense? 95th Ecological Society of America Annual Meeting, Pittsburgh, PA.

M.L. Forister, **A.C. McCall**, N.J. Sanders, J. A. Fordyce, J. H. Thorne, J. O'Brien, D.P. Waetjen, and A. M. Shapiro. 2010. Patterns of richness and decline: 35 years of butterflies along an altitudinal transect in Northern California. Sixth International Conference on the Biology of Butterflies, Alberta, Canada.

H. Robertson*, and **A.C. McCall**. 2010. The effects of leaf damage on petal and pollen defense in wild radish, *Raphanus sativus*. Midwest Ecology and Evolution Conference, Ames, IA.

C. Splawski*, and **A.C. McCall**. 2010. Abiotic effects on species richness and diversity in a newly-created tallgrass prairie. Midwest Ecology and Evolution Conference, Ames, IA.

J. Bury*, J. Rotramel*, L. Keny*, A. Boemi*, K. Buttermore*, T. Lan*, H. Robertson*, C. Splawski*, and **A. C. McCall**. 2010. Does *Alliaria petiolata* or its extracts affect

invertebrate abundance or behavior? Ohio Invasive Plant Council Conference, Columbus, OH.

McCall, A.C. 2010. Why being a hermaphrodite gets you eaten: these and other stories from the world of florivory. Invited seminar, Kenyon College, OH

McCall, A.C. 2009. What makes flowers attractive to antagonists?. Invited seminar, Case Western Reserve University, Cleveland, OH.

Venner, C.M*., M.Brown*, S. Wagenius, and **A.C. McCall.** 2009. The effects of fragmentation on pollination success in *Echinacea angustifolia*. Midwest Ecology and Evolution Conference, Lincoln, NE.

Murphy, S.J.*, C.M. Venner*, and **A.C. McCall.** 2009. The effects of petal color and inducible defenses on floral herbivory, Midwest Ecology and Evolution Conference, Lincoln, NE.

McCall, A.C. 2009. Why do florivores like to eat hermaphrodites and purple flowers? Invited seminar, University of Akron, OH.

McCall, A.C. 2009. Floral herbivore choice and plant responses to flower consumption. Invited seminar, California State University, Chico, CA.

McCall, A.C. and D. E. Carr. 2008. Does inbreeding affect tolerance to shoot herbivory in *Mimulus guttatus*? 93rd Ecological Society of America Annual Meeting, Milwaukee, WI

McCall, A.C. 2008. What do floral herbivores like? Invited seminar, College of Wooster, OH

McCall, A.C. 2008. How to use structural equation modeling to untangle indirect effects in ecology. Invited seminar, University of Nevada, Reno.

McCall, A.C. 2007. Size matters: florivore preference for hermaphrodites over females in *Nemophila menziesii*. Southeastern Population Ecology and Evolutionary Genetics (SEPEEG) Conference. Tremont Institute, TN

McCall, A.C. 2007. Not just for the bees: florivory and plant defenses in flowers. Invited seminar, Ohio Wesleyan University, OH

McCall, A.C. 2007. Florivore preference in *N. menziesii*. 92nd Ecological Society of America Annual Meeting, San Jose, CA.

McCall, A.C. 2007. Florivore preference for hermaphrodites over females in *Nemophila menziesii*. Gordon Research Conference: Plant-Animal Interactions, Ventura CA.

McCall, A.C. 2007. Herbivory involves more than leaves: the multiple effects of floral herbivory. Botanical Society of America/American Society of Plant Biology conference (Botany 2007), Chicago IL.

McCall, A.C., Sparks, K*., Drizin, J.*, and Fettig, S.* 2007. The effects of flowering phenology on gall incidence and pollination in *Vernonia gigantea*. Ohio Academy of Sciences Annual Meeting, Cleveland, OH.

- McCall, A.C., S. Wagenius, R.G. Shaw.** 2007. Fragmentation, inbreeding depression, and fluctuating asymmetry in *Echinacea angustifolia*. Bodega Marine Laboratory, UC-Davis.
- McCall, A.C.** 2007. Back into the quagmire: what's *really* going on with optimal defense theory? Invited seminar, U of California, Santa Barbara.
- McCall, A.C.** 2006. Does herbivory affect the realized niche of an annual plant? 91st Ecological Society of America Annual Meeting, Memphis, Tennessee.
- McCall, A.C.** 2006. Ecology and Evolution of California Plants Symposium, Pope Valley, CA.
- McCall, A.C.** 2006. Plant-insect interactions in a common California annual plant. Invited seminar, Sonoma State University, CA.
- McCall, A.C.** 2006. Herbivory involves more than leaves: the multiple effects of floral herbivory. Invited seminar, Denison University, OH.
- McCall, A.C.** 2005. Florivory and induced responses in three annual plant systems. Invited seminar, Rice University, Houston, TX.
- McCall, A.C.** 2005. The effects and consequences of florivory over five field seasons. Invited seminar, St. Olaf College, Northfield, MN.
- McCall, A.C.** 2005. Plasticity in plant reproductive parts: induced resistance and beyond. Invited seminar, University of Minnesota, St. Paul, MN.
- McCall, A.C.** 2005. Direct and indirect effects of abiotic characters on herbivory in a widespread annual plant. 90th Ecological Society of America Annual Meeting, Montreal, Quebec, Canada.
- Lau, J. and **A.C. McCall.** 2005. Evolutionary responses of native species to biological invasions and soil heterogeneity. 90th Ecological Society of America Annual Meeting, Montreal, Quebec, Canada.
- McCall, A.C.** 2005. Foraging behavior: the utility of optimal models. Invited lecture, Carleton College.
- McCall, A.C.** 2004. Floral damage reduces fecundity in *Nemophila menziesii* flowers. 89th Ecological Society of America Annual Meeting, Portland, Oregon.
- Kelsey, R., Sewall, B., Pinter-Wollman, N., Quinn, J., and **A.C. McCall.** 2004. Behavioral responses to human-induced habitat change. "Behavioral Responses to Human-Induced Rapid Environmental Change (HIREC)" Workshop, UC-Davis.
- McCall, A.C.** 2003. Induced floral resistance in a native California annual, *Nemophila menziesii*. 88th Ecological Society of America Annual Meeting, Savannah, Georgia.
- McKone, M.J., K.K. McLauchlan, E.G. Le Brun, and **A.C. McCall.** 1999. Edge effects in a tallgrass prairie remnant in an agricultural landscape: the abundance and impact of adult corn-rootworm beetles (Chrysomelidae: *Diabrotica* spp.) on sunflowers (Asteraceae: *Helianthus* spp.). 84th Ecological Society of America Annual Meeting, Spokane, Washington.

McCall, A.C., C. Reinke, S.R. Singer. 1998. The role of *UNIFOLIATA* in *Pisum sativum* floral development. American Society of Plant Physiologists, Madison, Wisconsin.

McCall, A.C., Linksvayer, T.L., and M.J. McKone. 1997. The roles of leaf-cutting ant minim workers in a Costa Rican rainforest. Invited seminar, University of St. Thomas, St. Paul, MN.

NATIONAL SERVICE

2010-present. Subject Editor for: Ecosphere, an open-source journal published by the Ecological Society of America

2006-2008. Organized and coordinated “How to land and keep a job at a liberal arts college” sessions at the 93rd Ecological Society of America Annual Meeting, Milwaukee, Wisconsin, the 92nd Ecological Society of America Annual Meeting, San Jose, California and at the 91st Ecological Society of America Annual Meeting, Memphis, Tennessee.

2010. Co-organized “Arriving, Surviving, and Thriving as an Ecological Educator/Scientist at a Primarily Undergraduate Institution” workshop at the 95th Ecological Society of America Annual Meeting, Pittsburgh, Pennsylvania

Member: 2006-2010 Ecological Society of America Award Committee for Buell and Braun Awards: Awards given to the finest graduate student lecture and poster at the annual national meeting of the Ecological Society of America. *Committee Chair*, 2009-2012.

Ad-hoc reviewer for: American Journal of Botany, Annals of Botany, Ecology, Journal of Ecology, Environmental Entomology, Evolutionary Ecology, Global Change Biology, Journal of Apiculture, Journal of Plant Ecology, New Zealand Journal of Ecology, Teaching Issues in Ecology and Evolution, The New Phytologist, The Plant Bulletin, Oecologia, Oikos, Journal of Ecology Blackwell Publishing (Ecology textbooks)

Member: Ecological Society of America, Ohio Academy of Science, *Sigma Xi*, Society for the Study of Evolution, *Phi Beta Kappa*

UNIVERSITY SERVICE

Environmental Studies Program Committee (2006-present)

Board of Trustees Admissions Committee (2006-2009)

Denison University Biological Society (DUBS) Faculty Liaison (2006-present)

Denison Asian American Student Union (AASU) Faculty Liaison (2010-present)

Denison University Homestead Advisory Board (HAB) (2007-2010)

Faculty of Color and International Faculty (FOCIF) (2009-present)

Campus Sustainability Committee (Chair, 2009-2011)

Phi Beta Kappa Historian (2009-present)

Phi Beta Kappa 100 year Anniversary Committee (2010-2011)

Denison Scientific Association coordinator (2009-2010)

