

JEFFREY DAVID KARRON

Professor
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www.karronlab.com

EDUCATION

- 1981-1987 Ph.D., Biology, University of Colorado. Advisor: Dr. Yan Linhart.
Awarded a 3 year Noyes Fellowship and a 1 year Graduate School Fellowship.
- 1977-1981 B.A. *cum laude*, Biology, Princeton University.
Honors thesis advisors: Dr. John Terborgh and Dr. Henry Horn.
Awarded a 4 year National Merit Scholarship.

PROFESSIONAL EXPERIENCE

- 2018-present Professor, Dept of Biological Sciences, UW-Milwaukee
- 1996-2018 Associate Professor, Dept. of Biological Sciences, UW-Milwaukee.
- 1990-1996 Assistant Professor, Dept. of Biological Sciences, UW-Milwaukee.
- 1987-1990 Postdoctoral Research Fellow, Department of Biology, University of New Mexico.
Advisor: Dr. Diane Marshall.

PROFESSIONAL LEADERSHIP RESPONSIBILITIES (*partial list*)

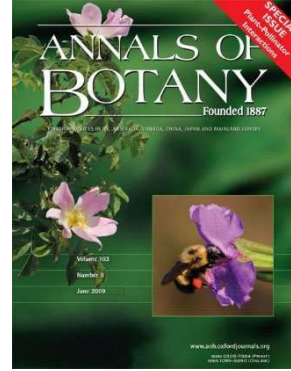
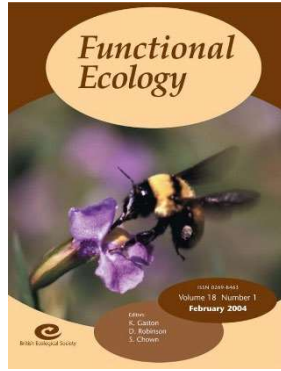
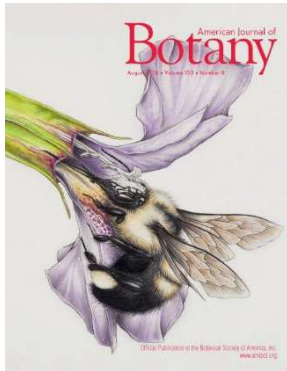
- 2017 Shenzhen, China. Lead organizer of a 2 session symposium at the 19th International Botanical Congress entitled "Ecology and Evolution of Plant Mating".
- 2014 Lille, France. Lead organizer of a 3 day International Conference on "Ecology and Evolution of Plant-Pollinator Interactions".
- 2011 Melbourne, Australia. Lead organizer of a symposium at the 18th International Botanical Congress on "Male function and patterns of paternity in flowering plant populations".
- 2011-present North American Editor, ANNALS OF BOTANY (5 yr. Impact factor 5.49)
- 2009-2012 Associate Editor, OECOLOGIA (5 yr. Impact factor 3.1)
- 2008 Organizer of an Ecological Society of America symposium on "The Ecology and Evolution of Plant-Pollinator Interactions."
- 2002 Organizer of a Botanical Society of America symposium on "Evolution of Mating Systems in the genus *Mimulus*."

RESEARCH AWARD

- 2000 UWM Graduate School / UWM Foundation Research Award.

PUBLICATIONS:

Google Scholar analysis: 4772 citations; h-index 32



Edited Volumes (refereed)

- 2019 Ecology and Evolution of Plant Reproduction. ANNALS OF BOTANY Volume 123. Oxford Univ. Press. I organized and co-edited this 16 article special issue.
- 2012 **Evolution of Plant Mating Systems.** ANNALS OF BOTANY Volume 109 (3). Oxford Univ. Press. I organized and edited this 14 article (186 page) special issue.
- 2009 **Ecology and Evolution of Plant-Pollinator Interactions.** ANNALS OF BOTANY Volume 103 (9) Oxford Univ. Press. I organized and edited this 23 article (245 page) special issue.

Refereed Papers:

* Corresponding author † Student or postdoc in my lab 5 year IF

- *†Shelton WR, Mitchell RJ, †Christopher DA, †Jack LP and **Karron JD**. 2023. Among-individual variation in flowering phenology affects flowering synchrony and mating opportunity. AMERICAN JOURNAL OF BOTANY doi.org/10.1002/ajb2.16269
Journal IF 3.657
- Karron JD**, †Christopher DA, †Semski WR. 2021. Pollen transport: Illuminating a key mechanism of disassortative pollination. CURRENT BIOLOGY 31: R893-R895. doi.org/10.1016/j.cub.2021.05.050
Journal IF 11.713
- *† Christopher DA, **Karron JD**, †Semski WR, Smallwood PA, Trapnell DW, Mitchell R.J. 2021. Selfing rates vary with floral display, pollinator visitation and plant density in natural populations of *Mimulus ringens*. JOURNAL OF EVOLUTIONARY BIOLOGY 34: 803-815. doi.org/10.1111/jeb.13781
Journal IF 2.756
- *† Christopher DA, Mitchell RJ, Trapnell DW, Smallwood, PA, Semski, WR, **Karron JD**. 2020 Edge effects and mating patterns in a bumblebee-pollinated plant, AoB PLANTS, Volume 12, Issue 4, August 2020, plaa033, doi.org/10.1093/aobpla/plaa033
Journal IF 3.496

- *† Christopher DA, Mitchell RJ, **Karron JD**. 2020. Pollination intensity and paternity in flowering plants, *ANNALS OF BOTANY* 125: 1–9. doi.org/10.1093/aob/mcz159 Journal IF 5.490
- *† Christopher DA, Mitchell RJ, Trapnell DW, Smallwood PA, †Semski WR, **Karron JD**. 2019. Hermaphroditism promotes mate diversity in flowering plants. *AMERICAN JOURNAL OF BOTANY* 106: 1131–1136. doi:10.1002/ajb2.1336 Journal IF 3.657
- * Minnaar C, *Anderson B, de Jager ML, **Karron JD**. 2019. Plant-pollinator interactions along the pathway to paternity. *ANNALS OF BOTANY* 123: 225-245. doi: 10.1093/aob/mcy167 Journal IF 5.490
- *† Whitehead MR, Mitchell RJ, **Karron JD**. 2018. Plant mating systems often vary widely among populations. *FRONTIERS IN ECOLOGY AND EVOLUTION* 6:38 doi.org/10.3389/fevo.2018.00038 Journal IF 3.907
- * Krauss SL, Phillips RD, **Karron JD**, Johnson SD, Roberts DG, Hopper SD. 2017. Novel consequences of bird pollination for plant mating. *TRENDS IN PLANT SCIENCE* 22: 395-410. Journal IF 13.442
- † Hallett AC, Mitchell RJ, † Chamberlain ER, * **Karron JD**. 2017. Pollination success following loss of a frequent pollinator: the role of compensatory visitation by other effective pollinators. *AoB PLANTS* doi 10.1093/aobpla/plx020 (11 pages)
Paper selected as "AoB PLANTS Editor's choice" Journal IF 3.496
- † Sorin YB, Mitchell RJ, Trapnell DW, * **Karron JD**. 2016. Effects of pollination and postpollination processes on selfing rate in *Mimulus ringens*. *AMERICAN JOURNAL OF BOTANY* 103: 1524-1528.
Paper featured with AM J BOT cover drawing by my student Allysa Hallett Journal IF 3.657
- * Mitchell RJ, Wilson WG, † Holmquist KG, **Karron JD**. 2013. Influence of pollen transport dynamics on sire profiles and multiple paternity in flowering plants. *PLOS One* 8 (10): e76312 (7 pages) Journal IF 3.394
- * **Karron JD**, Mitchell RJ. 2012. Effects of floral display size on male and female reproductive success in *Mimulus ringens*. *ANNALS OF BOTANY* 109: 563-570 Journal IF 5.490
- † Holmquist KG, Mitchell RJ, * **Karron JD**. 2012. Influence of pollinator grooming on pollen-mediated gene dispersal in *Mimulus ringens* (Phrymaceae). *PLANT SPECIES BIOLOGY* 27: 77-85.
Paper featured with Plant Species Biology cover photo by JD Karron Journal IF 1.215
Paper selected as "Editor's choice"
- * **Karron JD**, Ivey CT, Mitchell RJ, Whitehead MR, Peakall R, Case AL. 2012. New perspectives on the evolution of plant mating systems. *ANNALS OF BOTANY* 109: 493-503. Journal IF 5.490
- Nunziata SO, **Karron JD**, Mitchell RJ, Lance SL, Jones KL, * Trapnell DW. 2012. Characterization of 42 polymorphic microsatellite loci in *Mimulus ringens* (Phrymaceae) using Illumina sequencing. *AMERICAN JOURNAL OF BOTANY* 99 (12) e 477-e480. Journal IF 3.657

- * Medrano M, Requerey R, **Karron JD**, Herrera CM. 2012. Herkogamy and mate diversity in the wild daffodil *Narcissus longispathus*: beyond the self-outcrossing paradigm in the evolution of mixed mating. *PLANT BIOLOGY* 14: 801-810. Journal IF 2.459
- *† Flanagan RJ, Mitchell RJ, **Karron JD**. 2011. Effects of multiple competitors for pollination on bumblebee foraging patterns and *Mimulus ringens* reproductive success. *OIKOS* 120: 200-207. Journal IF 3.858
- *† Flanagan RJ, Mitchell RJ, **Karron JD**. 2010. Increased relative abundance of an invasive competitor for pollination, *Lythrum salicaria*, reduces seed number in *Mimulus ringens*. *OECOLOGIA* 164: 445-454. Journal IF 3.407
- * **Karron JD**, † Holmquist KG, † Flanagan RJ, Mitchell RJ. 2009. Pollinator visitation patterns strongly influence among-flower variation in selfing rate. *ANNALS OF BOTANY* 103: 1379-1383. *Paper featured with Annals of Botany cover photo by JD Karron* Journal IF 4.217
- Mitchell R.J., Irwin R.E., † Flanagan R.J., Brown B.J., * **Karron J.D.** 2009. Ecology and evolution of plant-pollinator interactions. *ANNALS OF BOTANY* 103: 1355-1363. Journal IF 4.217
- *† Flanagan RJ, Mitchell RJ, † Knutowski D, **Karron JD**. 2009. Interspecific pollinator movements reduce pollen deposition and seed production in *Mimulus ringens* (Phrymaceae). *AMERICAN JOURNAL OF BOTANY* 96: 809–815. Journal IF 3.048
- * Mitchell RJ, † Flanagan RJ, Brown BJ, Waser NM, **Karron JD**. 2009. New frontiers in competition for pollination. *ANNALS OF BOTANY* 103: 1403–1413. Journal IF 4.217
- * **Karron JD**, Mitchell RJ, † Bell JM. 2006. Multiple pollinator visits to *Mimulus ringens* (Phrymaceae) flowers increase mate number and seed set within fruits. *AMERICAN JOURNAL OF BOTANY* 93: 1306-1312. Journal IF 3.048
- † Bell JM, * **Karron JD**, Mitchell RJ. 2005. Interspecific competition for pollination lowers seed production and outcrossing in *Mimulus ringens*. *ECOLOGY* 86: 776-785. Journal IF 5.768
- * Mitchell RJ, **Karron JD**, † Holmquist KG, † Bell JM. 2005. Patterns of multiple paternity in fruits of *Mimulus ringens* (Phrymaceae). *AMERICAN JOURNAL OF BOTANY* 92: 885-890. Journal IF 3.048
- * **Karron JD**, Mitchell RJ, † Holmquist KG, † Bell JM, † Funk B. 2004. The influence of floral display size on selfing rates in *Mimulus ringens*. *HEREDITY* 92: 242-248. Journal IF 3.953
- * Mitchell RJ, **Karron JD**, † Holmquist KG, † Bell JM. 2004. The influence of *Mimulus ringens* floral display size on pollinator visitation patterns. *FUNCTIONAL ECOLOGY* 18: 116-124. *Paper featured with Functional Ecology cover photo by JD Karron* Journal IF 5.819
- * Linhart YB., Ellwood LM, **Karron JD**, Gehring JL. 2003. Genetic differentiation of dwarf mistletoes *Arceuthobium vaginatum* and *A. americanum* on their principal and secondary hosts. *INTERNATIONAL JOURNAL OF PLANT SCIENCES* 164: 61-69. Journal IF 1.866
- *† Reinartz GE, **Karron JD**, Phillips RB, Weber JL. 2000. Patterns of microsatellite polymorphism in the range-restricted bonobo (*Pan paniscus*): considerations for interspecific comparison to chimpanzees (*P. troglodytes*). *Molecular Ecology* 9: 315-328.

Journal IF 6.644

- * **Karron JD** 1998. Genetic consequences of different patterns of distribution and abundance. Chapter 10 in *The Biology of Rarity*. W. E. Kunin and K. J. Gaston, eds. Chapman & Hall, London, pp. 174-189.
- * **Karron JD**, † Jackson RT, † Thumser NN, † Schlicht SL. 1997. Outcrossing rates of individual *Mimulus ringens* genets are correlated with anther-stigma separation. *HEREDITY* 79: 365-370.
Journal IF 3.953
- *† Thumser NN, **Karron JD**, Ficken MS. 1996. Interspecific variation in the calls of *Spheniscus* penguins. *THE WILSON BULLETIN* 108: 72-79. Journal IF 0.719
- * **Karron JD**, † Tucker R, † Thumser NN, Reinartz JA. 1995. Comparison of pollinator flight movements and gene dispersal patterns in *Mimulus ringens*. *HEREDITY* 75: 612-617.
Journal IF 3.953
- * **Karron JD**, † Thumser NN, † Tucker R, † Hessenauer AJ. 1995. The influence of population density on outcrossing rates in *Mimulus ringens*. *HEREDITY* 75: 175-180.
Journal IF 3.953
- *† Thumser NN, **Karron JD**. 1994. Patterns of genetic polymorphism in five species of penguins. *AUK* 111: 1018-1022.
Journal IF 2.410
- * **Karron JD**, Marshall DL. Effects of environmental variation on fitness of singly and multiply sired progenies of *Raphanus sativus* (Brassicaceae). *AMERICAN JOURNAL OF BOTANY* 80: 1407-1412.
Journal IF 3.048
- * **Karron JD**. 1991. Patterns of genetic variation and breeding systems in rare plant species. Chapter 6 in *Genetics and Conservation of Rare Plants*. D. A. Falk and K. E. Holsinger, eds. Oxford University Press, Oxford.
- * **Karron JD**, Marshall, DL. 1990. Fitness consequences of multiple paternity in wild radish, *Raphanus sativus*. *EVOLUTION* 44: 260-268.
Journal IF 4.559
- * **Karron JD**, Marshall DL, Oliveras DM. 1990. Numbers of sporophytic self-incompatibility alleles in populations of wild radish. *THEORETICAL AND APPLIED GENETICS* 79: 457-460.
Journal IF 4.152
- * **Karron JD**. 1989. Breeding systems and levels of inbreeding depression in geographically restricted and widespread species of *Astragalus* (Fabaceae). *AMERICAN JOURNAL OF BOTANY* 76: 331-340.
Journal IF 3.048
- * **Karron JD**, Linhart YB, † Chaulk CA and † Robertson CA. 1988. Genetic structure of populations of geographically restricted and widespread species of *Astragalus* (Fabaceae). *AMERICAN JOURNAL OF BOTANY* 75: 1114-1119.
Journal IF 3.048
- * **Karron JD**. 1987. The pollination ecology of co-occurring geographically restricted and widespread species of *Astragalus* (Fabaceae). *BIOLOGICAL CONSERVATION* 39: 179-193.
Journal IF 4.546
- * **Karron JD**. 1987. A comparison of levels of genetic polymorphism and self-compatibility in geographically restricted and widespread plant congeners. *EVOLUTIONARY ECOLOGY* 1: 47-58.
Journal IF 2.211

Manuscripts submitted:

* Mitchell RJ, Starvaggi D, Fitzgerald V, **Karron JD**. Relative importance of different floral visitors for pollination of *Mimulus ringens*. Submitted to AMERICAN JOURNAL OF BOTANY

INVITED LECTURES:

2023	Hope College	Holland, MI USA
2023	Carthage College	Kenosha, WI USA
2019	Rancho Santa Ana Botanic Garden	Claremont, CA USA
2018	Université de Montpellier	Montpellier, France
2018	Lake Forest College	Lake Forest, IL USA
2017	Kings Park Botanic Garden	Perth, Australia
2014	Museum National D'histoire Naturelle	Paris, France
2014	University of Lille	Lille, France
2014	University of Missouri - St. Louis	St. Louis, MO USA
2013	University of Wisconsin – Madison	Madison, WI USA
2011	Australian National University	Canberra, Australia
2005	University of Wisconsin – Madison	Madison, WI USA
2004	University of Maryland	College Park, MD USA
2004	University of Virginia	Charlottesville, VA USA
2000	University of Akron	Akron, OH USA
1999	Illinois State University	Normal, IL USA
1998	University of Georgia, Department of Botany	Athens, GA USA
1998	University of Georgia, Department of Genetics	Athens, GA USA
1998	Chicago Botanic Garden	Glencoe, IL USA
1997	Rutgers University	New Brunswick, NJ USA
1996	University of Illinois--Champaign-Urbana	Champaign, IL USA
1995	Carroll College	Waukesha, WI USA
1994	Michigan State Univ, Kellogg Biological Station	Hickory Corners, MI USA
1994	University of Wisconsin-Whitewater	Whitewater, WI USA
1993	University of Chicago	Chicago, IL USA
1992	University of Wisconsin-Madison	Madison, WI USA
1992	Indiana University	Bloomington, IN USA
1990	Barnard College	New York, NY USA
1990	University of Wisconsin-Milwaukee	Milwaukee, WI USA
1989	University of Cincinnati	Cincinnati, OH USA
1989	University of Kentucky	Lexington, KY USA
1988	University of New Mexico	Albuquerque, NM USA

CONFERENCE TALKS (National and International Meetings)

† Student or postdoc in my lab

- 2022 Karron JD, Degenhardt K, Mitchell RJ. Reproductive ecology of buzz pollinated *Primula meadia*. 4th International Symposium on the Ecology and Evolution of Flowers. Darmstadt, GERMANY
- 2022 † Degenhardt K, Karron JD, Christopher D, Rush R, and Mitchell RJ. Reproductive ecology of buzz pollinated *Primula meadia*. SCAPE International Pollination Ecology Meeting. Gimo, SWEDEN.
- 2022 Karron J, Christopher D, Semski W, Mitchell R, and Trapnell D. Pollen competition contributes to wide variation in siring success in the field.
- 2021 Karron JD *et al.* Sexual selection in hermaphroditic flowering plants: an experimental test of Bateman's principles. Botanical Society of America. Virtual oral presentation.
- 2021 † Semski WR, Karron JD *et al.* Individual flowering schedules and floral display size in monkeyflower: a common garden study. Botanical Society of America. Virtual oral presentation.
- 2021 † Christopher DA, Karron JD, *et al.* Edge effects and mating patterns in a bumble-bee pollinated plant. Botanical Society of America. Virtual oral presentation.
- 2021 Mitchell RJ, Starvaggi D, Fitzgerald V, Karron JD. Pollination effectiveness of different floral visitors to *Mimulus ringens*. Botanical Society of America. Virtual oral presentation.
- 2021 † Christopher DA, Karron JD *et al.* Variation in male and female fitness, a test of Bateman's principle. Society for the Study of Evolution. Virtual oral presentation.
- 2021 † Semski WR, Karron JD *et al.* Individual flowering schedules and floral display size in monkeyflower: a common garden study. Botanical Society of America. Virtual oral presentation.
- 2020 Karron JD, Christopher DA, Trapnell DW *et al.* Strong support for Bateman's principle in a hermaphroditic plant. Botanical Society of America. Virtual oral presentation.
- 2020 † Semski WR, Mitchell, RJ, Karron JD. Individual flowering schedules and floral display size in monkeyflower: a common garden study. Botanical Society of America. Virtual oral presentation.
- 2020 † Christopher DA, Karron JD, Trapnell DW, Mitchell RJ. Population selfing rates vary with floral display size and pollinator activity in natural populations of monkeyflower Botanical Society of America. Virtual oral presentation.
- 2020 † Semski WR, Mitchell RJ, Karron JD. Individual flowering schedules and floral display size in monkeyflower: a common garden study. Scandinavian Associate for Pollination Ecology. Virtual oral presentation.
- 2019 Karron JD, Christopher DA, Trapnell DW *et al.* Mating portfolios, pollination, and mate diversity in monkeyflower. Botanical Society of America. Tucson, Arizona, USA.
- 2019 Karron JD. Pollination, paternity, and mating portfolios in a hermaphroditic plant. SCAPE 2019. Höör, Sweden.
- 2019 Karron JD, Christopher DA, Mitchell RJ *et al.* Mating portfolios, paternity, and mate diversity in monkeyflower. Providence, Rhode Island, USA.
- 2019 † Christopher DA, Karron JD, Mitchell RJ *et al.* Greater variation in male than in female fitness in monkeyflower: Evidence for Bateman's Principle. Providence, Rhode Island, USA.
- 2019 † Semski WR, Karron JD, Mitchell RJ *et al.* The influence of herkogamy on selfing rates and pollen export in monkeyflower. Providence, Rhode Island, USA.
- 2019 Mitchell RJ, Karron JD, Christopher DA *et al.* The influence of floral display, floral traits, and pollinators on selfing rates of *Mimulus ringens*. Providence, Rhode Island, USA.
- 2018 Karron JD. Linking plant-pollinator interactions to pollen dispersal and siring success. *Annals of Botany* Lecture at the Botanical Society of America. Rochester, Minnesota, USA.
- 2018 Karron JD, Mitchell RJ, Christopher DA, Trapnell DW *et al.* Continuous variation in floral tube length promotes disassortative mating in monkeyflower. Botanical Society of America. Rochester, Minnesota, USA.

- 2018 † Semski W, Karron JD, Mitchell RJ, Trapnell DW *et al.* Influence of herkogamy on selfing rate and pollen export in *Mimulus ringens*. Botanical Society of America. Rochester, Minnesota, USA.
- 2018 † Christopher DA, Karron JD, Mitchell RJ, Trapnell DW *et al.* Variation in male and female fitness in monkeyflower, a test of Bateman's principle. Botanical Society of America. Rochester, Minnesota, USA.
- 2017 Karron JD, Whitehead MR, Mitchell RJ. Why do selfing rates often vary widely among populations? International Botanical Congress, Shenzhen, China.
- 2017 Karron JD, Mitchell RJ, Whitehead MR. Ecological and evolutionary mechanisms for among-population variation in selfing rates. Botanical Society of America, Fort Worth, Texas, USA.
- 2015 Karron JD, † Sorin YB, Mitchell RJ, Trapnell DW. Influence of pollinator visitation patterns and post-pollination processes on selfing rate. Botanical Society of America, Edmonton, Alberta, Canada.
- 2015 † Vizelka J, Karron JD, Mitchell RJ, Trapnell DW. Differential contributions of multiple bumble bee species on reproductive success and mating patterns in *Mimulus ringens*. Botanical Society of America, Edmonton, Alberta, Canada.
- 2015 † Sorin YB, Karron JD, Mitchell RJ, Trapnell DW. Effects of timing of pollen arrival on selfing rate in *Mimulus ringens*. Botanical Society of America, Edmonton, Alberta Canada.
- 2015 † Hallett A, Karron JD, † Chamberlain E, Mitchell RJ. How would a decline in bumble bee visitation influence pollination success in whorled milkweed (*Asclepias verticillata*)? Botanical Society of America, Edmonton, Alberta, Canada.
- 2015 Mitchell RJ, † Sorin YB, Karron JD, Trapnell DW. Effects of timing of pollen arrival on selfing rate in *Mimulus ringens*. Ecological Society of America. Baltimore, Maryland, USA.
- 2014 Karron JD, † Vizelka J, Mitchell RJ. Do changes in bumble bee species abundance influence reproductive success and mating patterns in monkeyflower?. British Ecological Society and French Ecological Society, Lille, France.
- 2014 Mitchell RJ, Karron JD. Effects of monkeyflower floral display size on reproductive success through male and female sexual functions. Ecological Society of America, Sacramento, California, USA.
- 2014 Karron JD, Mitchell RJ. Influence of different bumble bee species on reproductive success and mating patterns in monkeyflower, *Mimulus ringens*. Botanical Society of America, Boise, Idaho, USA.
- 2014 † Hallett A, Mitchell RJ, Karron JD. Competition for pollination between *Asclepias verticillata* and *Monarda fistulosa*. American Society of Naturalists. Asilomar, California, USA (poster)
- 2014 † Vizelka J, Karron JD, Mitchell RJ. Effects of closely related bumble bee species on reproductive success and mating patterns in *Mimulus ringens*. American Society of Naturalists, Asilomar, California, USA (poster)
- 2014 Karron JD, Mitchell RJ. Effects of floral display on male and female reproductive success in monkeyflower. American Society of Naturalists, Asilomar, California, USA.
- 2013 † Vizelka J, Karron JD, Mitchell RJ. Effects of closely related bumble bee species on reproductive success and mating patterns in *Mimulus ringens*. Botanical Society of America, New Orleans, Louisiana, USA.
- 2013 Karron JD, Mitchell RJ. Effects of floral display size on male and female reproductive success in monkeyflower. Botanical Society of America, New Orleans, Louisiana, USA.
- 2012 Mitchell RJ, Karron JD. Effects of floral display size on male and female reproductive success in *Mimulus ringens*. Joint meeting of the European Society for Evolutionary Biology and the Society for the Study of Evolution, Ottawa, Canada.
- 2012 Karron JD, Mitchell RJ. Multiple mating and male-female conflict in a hermaphroditic plant. Joint meeting of the European Society for Evolutionary Biology and the Society for the Study of Evolution, Ottawa, Canada.

- 2011 Medrano M, Requerey R, Karron JD, Mitchell RJ, Herrera CM. Herkogamy influences mate diversity in fruits of the wild daffodil *Narcissus longispathus*. 18th International Botanical Congress. Melbourne, Australia.
- 2011 Mitchell RJ, Karron JD. Herkogamy influences mate diversity in fruits of the wild daffodil *Narcissus longispathus*. Botanical Society of America, St. Louis, Missouri, USA.
- 2011 Karron JD, Mitchell RJ. Influence of pollinator visitation patterns on multiple paternity in flowering plants," 18th International Botanical Congress. Melbourne, Australia.
- 2010 Karron JD. Influence of pollinator visitation patterns on multiple paternity in *Mimulus* and *Narcissus*. Society for the Study of Evolution. Portland, Oregon, USA
- 2007 Karron JD, Mitchell RJ, † Holmquist K. Pollinator visitation history strongly influences among-flower variation in selfing rate and mate number. Botanical Society of America. Chicago, Illinois, USA.
- 2007 † Flanagan RJ, Karron JD, Mitchell RJ. The effects of competitor plant abundance on pollinator visitation, pollen deposition, and reproductive success in *Mimulus ringens*. Botanical Society of America. Chicago, Illinois, USA.
- 2006 Karron JD, Mitchell RJ. Effects of floral display on male and female reproductive success in *Mimulus ringens*. Society for the Study of Evolution. Stony Brook, New York, USA.
- 2006 † Flanagan R, Karron JD, Mitchell RJ. Exploring the effects of multiple competitors for pollination on the mating system of *Mimulus ringens*. Society for the Study of Evolution, Stony Brook, New York, USA.
- 2006 Mitchell RJ, Karron JD. Effects of floral display on male and female reproductive success in *Mimulus ringens*. Ecological Society of America. Memphis, Tennessee, USA.
- 2005 Karron JD, † Holmquist K, Mitchell RJ Why does geitonogamous selfing vary markedly among flowers? Meeting of the Society for the Study of Evolution. Fairbanks, Alaska, USA.
- 2005 Mitchell RJ, Karron JD, † Bell, J. Multiple pollinator visits to *Mimulus ringens* flowers increase mate number and seed set within fruits. Meeting of the Ecological Society of America; Montreal Canada.
- 2005 † Holmquist K., Karron JD, Mitchell RJ. Pollen mediated gene dispersal in *Mimulus ringens*: Pollinator grooming and multiple flower displays. Meeting of the Ecological Society of America; Montreal Canada
- 2005 † Bell J, Karron JD, Mitchell RJ. Interspecific competition for pollination lowers seed production and outcrossing in *Mimulus ringens*. Meeting of the Ecological Society of America; Montreal Canada.
- 2004 Karron JD, Mitchell RJ, † Holmquist K, † Bell J. Patterns of multiple paternity in fruits of *Mimulus ringens*. Annual meeting of the Society for the Study of Evolution. Fort Collins, Colorado, USA.
- 2004 † Bell J, Karron JD, Mitchell RJ. Interspecific competition lowers seed production and outcrossing in *Mimulus ringens*. Annual meeting of the Botanical Society of America. Salt Lake City, Utah, USA.
- 2004 Mitchell RJ, Karron JD, † Bell J. Interspecific competition for pollination lowers seed production and outcrossing in *Mimulus ringens*. Annual meeting of the Ecological Society of America. Portland, Oregon, USA.
- 2003 † Holmquist KJ, Karron JD, Mitchell RJ. Pollen carryover and gene dispersal. Annual meeting of the Society for the Study of Evolution. Chico, California, USA.
- 2003 Mitchell RJ, Karron JD, † Holmquist KG, † Bell J, † Funk B. Patterns of multiple paternity in fruits of *Mimulus ringens*. Annual meeting of the Ecological Society of America. Savannah, Georgia, USA.
- 2002 † Bell JM, Karron JD, Mitchell RJ. The effect of interspecific competition for pollinator service on pollen dispersal and gene flow in mixed arrays of *Mimulus ringens* and *Lobelia siphilitica*. Annual meeting of the Botanical Society of America, Madison, Wisconsin, USA.
- 2002 † Holmquist K, Karron JD, Mitchell RJ. The effect of variation in floral reproductive morphology on pollen dispersal and gene flow in *Mimulus ringens*. Annual Meeting of the Botanical Society of America, Madison, Wisconsin, USA.

- 2002 Karron JD, Mitchell RJ, † Holmquist JD, † Bell J, † Funk B. The influence of floral display size on selfing rates in *Mimulus ringens*. Annual meeting of the Society for the Study of Evolution, Urbana-Champaign, Illinois, USA.
- 2002 † Bell JM, Karron JD, Mitchell RJ. The effect of interspecific competition for pollinator service on pollen dispersal and gene flow in mixed arrays of *Mimulus ringens* and *Lobelia siphilitica*. Annual meeting of the Society for the Study of Evolution, Urbana-Champaign, Illinois, USA.
- 2002 † Holmquist KJ, Karron JD, Mitchell RJ. The effect of variation in floral reproductive morphology on pollen dispersal and gene flow in *Mimulus ringens*. Annual meeting of the Society for the Study of Evolution, Urbana-Champaign, Illinois, USA.
- 2001 Karron JD, Mitchell RJ. 2001. The influence of floral display size on mating patterns in *Mimulus ringens*. Annual meeting of the Ecological Society of America.
- 2001 Mitchell RJ, Karron JD. 2001. The influence of *Mimulus ringens* floral display size on patterns of pollinator visitation. Annual meeting of the Ecological Society of America.
- 2001 † Bell JM, Karron JD, Mitchell RJ. The effect of interspecific competition for pollinator service on pollen dispersal and gene flow in mixed arrays of *Mimulus ringens* and *Lobelia siphilitica*. Annual meeting of the Ecological Society of America (poster).
- 2001 † Holmquist KJ, Karron JD, Mitchell RJ. The dynamics of pollen carryover and gene dispersal in *Mimulus ringens*. Annual meeting of the Ecological Society of America (poster).
- 2000 Mitchell RJ, Karron. The evolutionary significance of floral display size: a multigenerational selection experiment. Annual meeting of the Society for the Study of Evolution. Bloomington, Indiana, USA.
- 1999 Karron JD, Mitchell RJ. The evolutionary consequences of floral display size in a self-compatible plant. Annual meeting of the Society for the Study of Evolution. Madison, Wisconsin, USA.
- 1998 Karron JD. Factors influencing outcrossing rates and patterns of paternity in Monkeyflower, *Mimulus ringens*. Annual meeting of the Society for the Study of Evolution. Vancouver, British Columbia, Canada.
- 1996 Karron JD. Outcrossing rates of individual monkeyflower plants are correlated with anther-stigma separation. 50th annual meeting of the Society for the Study of Evolution. Washington University, St. Louis, Missouri, USA.
- 1996 † Reinartz G, Karron JD. Patterns of genetic diversity in the Bonobo (*Pan paniscus*). Meeting of the International Primatology Society. Madison, Wisconsin, USA.
- 1995 Karron JD. Pollinator movements and patterns of gene dispersal in *Mimulus ringens*. Annual meeting of the Society for the Study of Evolution. Montreal, Quebec, Canada.
- 1994 Karron JD. The influence of floral morphology and population density on mating patterns in *Mimulus ringens*. Annual meeting of the Society for the Study of Evolution. Athens, Georgia, USA.
- 1992 Karron JD. The influence of plant density on patterns of gene dispersal in *Mimulus ringens*. 5th Congress of the International Organization of Plant Biosystematists. St. Louis, Missouri, USA.
- 1992 Karron JD. The influence of plant density on patterns of gene dispersal in *Mimulus ringens*. Society for the Study of Evolution. Berkeley, California, USA.
- 1991 Karron JD. Effects of environmental variation on fitness of singly and multiply sired progeny. Annual meeting of the Society for the Study of Evolution. Hilo, Hawaii, USA.
- 1991 Karron JD. Inbreeding depression in rare plant populations. Annual meeting of the Society for Conservation Biology. Madison, Wisconsin, USA.
- 1989 Karron JD, Marshall DL. Effects of environmental variation on fitness of singly and multiply sired progeny. Annual meeting of the Botanical Society of America. Toronto, Ontario, Canada. American Journal of Botany 76:110.

- 1988 Karron JD, Marshall DL. Fitness consequences of multiple paternity in wild radish: a test of the sib-competition hypothesis. Annual meeting of the Ecological Society of America. Bull. Ecol. Soc. America 69: 186-7.
- 1988 Karron JD, Marshall DL. Fitness consequences of multiple paternity in wild radish: a test of the sib-competition hypothesis. Annual meeting of the Society for the Study of Evolution. Monterey, California, USA.
- 1987 Karron JD, Marshall DL. Breeding systems and inbreeding depression in locally endemic and geographically widespread species of *Astragalus*. Annual meeting of the Society for the Study of Evolution. Bozeman, Montana, USA.
- 1987 Karron JD. Breeding systems and inbreeding depression in locally endemic and geographically widespread species of *Astragalus* (Fabaceae). Annual meeting of the Botanical Society of America. Columbus, Ohio, USA. A.J.B. 74: 653.
- 1986 Karron JD. A comparison of breeding systems in geographically restricted and widespread *Astragalus* species. Annual meeting of the Ecological Society of America. Syracuse, New York, USA. Bulletin of the Ecological Society of America, special program issue for the IV International Congress of Ecology, p. 195.
- 1986 Karron JD. A comparison of genetic structure and breeding systems in geographically restricted and widespread *Astragalus* species. Annual meeting of the Society for the Study of Evolution. Durham, New Hampshire, USA.
- 1986 Karron JD. A comparison of breeding systems in geographically restricted and widespread *Astragalus* species. Annual meeting of the Botanical Society of America. Amherst, Massachusetts, USA. American Journal of Botany 73: 670.
- 1985 Karron JD. Pollinator visitation rates, self-compatibility and genetic structure in geographically widespread and restricted species of *Astragalus* (Fabaceae). Annual meeting of the Ecological Society of America. Bulletin of the Ecological Society of America 66: 206.
- 1984 Karron JD. Reproductive ecology of co-occurring geographically widespread and restricted species of *Astragalus* (Fabaceae). Annual meeting of the Botanical Society of America. Fort Collins, Colorado, USA. A.J.B. 71: 81.

Public Lectures:

Friends of Lake Park	2016
UWM Alumni Association	2016
UWM Alumni Association	2015
Riveredge Nature Center	2013
UWM Science Bag	2008 (6 large public lectures)
Whitefish Bay Middle School	2008
Richards School, Whitefish Bay	2003, 2004, 2006, 2007
Hartford University School	2004
Urban Ecology Center	
Milwaukee Public Museum	

RESEARCH GRANTS:

- 2017-2023 **Karron, J. D.** "Collaborative Research: Evolutionary tradeoffs between outcross siring success and selfing: the role of ecological context in the stability of mixed mating systems. NSF Evolutionary Processes. DEB-1654943. I am the lead PI on this award. Total funding for this project is project is \$ 931,255. The UW Milwaukee award is \$ 386,631. MIL112309. Project AA9314.
- The other PIs on the 3 collaborative awards (DEB-1654943, DEB-1654967, DEB-1654951) are Dorset Trapnell (Univ. of Georgia), Randall Mitchell (Univ of Akron), Emmanuelle Porcher (Muséum National d'Histoire Naturelle, Paris, FRANCE and Celine Devaux (Université Montpellier 2, Montpellier, FRANCE)*
- 2019-2020 **Karron, J. D.**, "Understanding the effects of pollinator loss on mating patterns and gene dispersal in a native flowering plant species," Sponsored by the University of Wisconsin-Milwaukee Research Growth Initiative: \$155,929. RGI Award # 101X390.
- 2014-2016 **Karron, J. D.**, "Understanding the evolutionary tug-of-war between male and female function in hermaphroditic flowering plants," Sponsored by the University of Wisconsin-Milwaukee Research Growth Initiative: \$94,000.00. RGI Award # 101X306.
- 2006-2009 Flanagan, R. E. and **J. D. Karron.** Applied Ecological Services.
 "Quantifying the effects of exotic invasive species on the pollination dynamics of native plant communities: a multispecies approach." \$ 7,500
 UW award # 133-JL25
- 1999-2005 **Karron, J. D.** National Science Foundation award DEB-9816712.
 "The evolutionary consequences of floral display size in a self-compatible plant." \$ 260,071.
- 2001 **Karron, J. D.** National Science Foundation Research Experiences for Undergraduates supplemental award. \$ 4,875.
- 2001 Reinartz, J.A., P.O. Dunn, **J. D. Karron**, G.A. Meyer, and L.A. Whittingham.
 Expansion of Laboratory Facilities at the University of Wisconsin - Milwaukee Field Station. NSF Field Stations and Marine Laboratories Improvement Program award (DEB-0122315) \$ 138,642.
- 1995-98 **Karron, J. D.**, Ehlinger, T. J., Phillips, R. B., Sommer, C. B. and Sandgren, C. D.
 National Science Foundation award STI-9414978. "Renovation of ecology and conservation biology research facilities". \$ 322,000.
 (A matching award of \$ 322,000 was provided by the State of Wisconsin).
- 1992-96 **Karron, J. D.** National Science Foundation award DEB-9119311.
 "Experimental manipulation of ecological factors influencing mating patterns in *Mimulus ringens*." \$ 155,866.
- 1995 **Karron, J. D.** National Science Foundation Research Experiences for Undergraduates supplemental award. \$ 4,984.
- 1995-96 **Karron, J. D.** UWM Graduate School Research Committee Award.
 "The genetic basis of plant reproductive strategies." \$ 9,034.
- 1994 **Karron, J. D.** National Science Foundation Research Experiences for Undergraduates supplemental award. \$ 4,984.
- 1991-92 **Karron, J. D.** UWM Graduate School Research Committee Award.
 "Experimental studies of gene dispersal in natural populations." \$ 8,292.

- 1985-87 **Karron, J. D.** National Science Foundation award BSR-8514441. Dissertation Improvement Grant. "A comparison of the pollination biology, breeding systems, and population genetic structure of geographically restricted and widespread species in the genus *Astragalus* (Fabaceae)." \$ 4,900.

TEACHING:

I teach the following lecture courses every year:

- EVOLUTIONARY BIOLOGY 575. *This 3 credit course for seniors and graduate students emphasizes microevolutionary processes. I developed this class as a foundation for our program in evolutionary ecology. The enrollment is usually 30-40 students.*
- CONSERVATION BIOLOGY 505. *This 3 credit course for juniors, seniors and graduate students provides a broad survey of genetic and ecological considerations for preservation of natural diversity. I developed this course to meet the needs of undergraduates enrolled in both the Biological Sciences major and students enrolled in the Conservation and Environmental Science interdisciplinary major. The enrollment is typically 35-45 students.*
- FOUNDATIONS OF BIOLOGICAL SCIENCES 150. *This team-taught course is the first semester of our year-long sequence for majors. I lecture on evolutionary biology, animal behavior, and ecology, and supervise labs on topics that compliment lecture material. The typical enrollment in my section is 230 – 300 students.*

In addition, every 2-3 years I teach a graduate seminar (927) on one of the following topics:

- *Evolution of Mating Systems*
- *The Ecology and Evolution of Plant-Animal Interactions*
- *The Ecology and Evolution of Sexual Reproduction.*

RESEARCH TRAINING

Postdoctoral Researchers in Jeffrey Karron's laboratory

- | | | |
|---------------------|-----------|--|
| Michael Whitehead | 2016 | Research funded by an Australian Government Endeavour Scholarship. Michael's research explored factors influencing mating system variation within and among populations of flowering plants. |
| Dorothy Christopher | 2017-2021 | Research funded by National Science Foundation. Dorothy's research examines how ecological context influences the evolutionary stability of mixed mating systems. |

Visiting Scholars in Jeffrey Karron's laboratory

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|-----------------|------|--|
| Monica Medrano | 2010 | Estación Biológica de Doñana, CSIC Sevilla, Spain
Research on mechanisms of multiple paternity in flowering plants. |
| Clotilde Lepers | 2015 | University of Lille. Lille, France.
Research on the influence of floral display size on pollinator foraging |

behavior

Dorset Trapnell 2017 University of Georgia. USA.
Research on the Evolution of Plant Mating Systems.

Ph. D. Students supervised by Jeffrey Karron

- Nina Thumser (PhD in 1993) Phylogenetic relationships among *Spheniscus* penguins based on the analysis of vocal and allozyme data. (co-advised by J. Karron and M. Ficken)
- Gay Reinartz (PhD in 1997) Patterns of genetic variation in the Bonobo (*Pan paniscus*) (co-advised by J. Karron and M. Ficken)
- John Bell (PhD in 2003) The effect of interspecific competition for pollinator service on seed production and outcrossing rates in *Mimulus ringens* (Scrophulariaceae).
- Karsten Holmquist (PhD in 2005) The effect of floral display and pollinator behavior on pollen-mediated gene dispersal in *Mimulus ringens*.
- Rebecca Flanagan (PhD in 2009) Exploring the effects of competitors for pollination on the reproductive success of *Mimulus ringens*.
- Jason Vizelka (current) Differential contributions of multiple bumble bee species to the reproductive success and mating patterns in *Mimulus ringens*
- Wendy Semski (current) The ecology and evolution of flowering strategies in *Mimulus ringens*.
- Katrina Degenhardt (current) Spatial and temporal variation in plant pollinator interactions.

MS Students supervised by Jeffrey Karron

- Ramona Berger (MS in 1998) Conserving a rare, self-incompatible plant: seed production and clonal structure of *Aster furcatus* populations.
- Hannelore Artiomow (MS in 2003) The influence of population size and density on pollinator service in *Agalinis skinneriana* (Orobanchaceae)
- Allysa Hallett (MS in 2016) Consequences of loss of an abundant pollinator: an experimental study
- Yuliya Sorin (MS in 2016) Effect of pollination and postpollination processes on selfing rate

Undergraduates supervised by Jeffrey Karron

- Amy Hessenauer (1993)
- Stephanie Schlicht (1997)
- Benjamin Funk (2000)
- Dustin Knutowski (2008)
- Jason Vizelka (2010)
- Jessica Fouliard (2013)
- Yuliya Sorin (2014)

Evan Chamberlain (2014)
Jessica Pledge (2014)
John Nguyen (2016)
Wendy Semski (2016)
Halley Minsner (2017)
Rebecca Cross (2017)
Margaret Hackl (2017)
Annie Hackl (2018)
Halley Minser (2018)
Hanna Buccowich (2019)
Hannah Witterholt (2019)
Brandon Musack (2022)
Richard Rush (2021-2023)
Riley Thomas (2023)
Amelia Scheiber (2024)
Leo Vogel (2024)

Membership on PhD and Masters thesis Committees

Currently enrolled graduate students:

Rebecca Dekoster (current PhD student – UWM GeoSciences)
Billie Harrison (current PhD student – UWM BioSci)
Kyla Knauff (current PhD student – Northwestern University)
Madeline Opie (current MS student – UWM BioSci)
Shanice Piango (current PhD student – UWM BioSci)

Names of PhD and Masters students who have graduated:

Katie Barry (PhD 2016)
Craig Berg (PhD)
Jason Berg (MS 2011)
Terry Bott (MS 2007)
Joseph Boxhorn (PhD 1999)
Jevra Brown (PhD 1993)
Algis Byla (PhD 1997)
Gary Casper (PhD 2003)
Rose Chemelowski (MS 1996)

Robert Clare (MS 2003)
Rachel Cook (PhD 2022)
Michael Dorschner (PhD 1998)
John Emerson (MS 2012)
Tim Gerber (PhD 1994)
Lily Gierke (MS)
Heidi Hergarten (MS 2015)
Tim Hauser (PhD)
Stephen Hovick (MS 2005)
Brian Huber (MS 2002)
Jeff Johnson (PhD 2003)
Josh Kapfer (PhD 2007)
Michael Kost (MS 1996)
Beth Krause (MS 1995)
Erica Leder (PhD)
Ron Londre (MS 2005)
Joseph Mascaro (PhD 2010)
Mindy Mymudes (MS 1991)
Renee Netter (MS 2001)
Ai Nihongi (PhD 2006)
Heather O'Brien (MS 2005)
Kara Peterson (MS 2000)
Selvakumar Ramakrishnan (PhD 2002)
Kimberly Rinzel (MS 2000)
Maria Rodriguez Ronderos (MS 2015)
Suzanne Rutishauser (MS 2012)
Eric Schuettpelz (MS 2001)
Jason Servi (MS 2016)
Tom Slawski (PhD 1997)
Mary Stapleton (MS 2001)
Laura Stremick (MS 1996)
Alice Thompson (MS 1995)
Genelle Uhrig (MS)
Brian Walsh (MS 1999)

Mark White (PhD did not finish)

Jennifer Winkelmann (MS 2008)

Alexandra "Sasha" Wright (PhD 2013)

Elsa Youngsteadt (MS 2003)

External examiner for dissertations from the following Universities:

Australian National University (Michael Whitehead PhD 2012)

University of Kwazulu-Natal, South Africa (Sandy-Lynn Steenhuisen PhD 2012)

University of Western Australia (Alison Ritchie PhD 2014)

University of Melbourne

UNIVERSITY SERVICE

UWM Faculty Senate (2012-2016)

UWM Natural Sciences Divisional Committee (Tenure and Promotion) (2012-2013)

UWM Natural Sciences Divisional Committee (Tenure and Promotion) (2019-2023; Chair, 2022-2023)

UWM Science Quad open space planning committee

COLLEGE OF LETTERS AND SCIENCE SERVICE

UWM Field Station Committee (1991-present) (Chair for much of this period of time)

Conservation and Environmental Science Committee (1993-2004)

DEPARTMENT SERVICE

Planning Committee (2023-2024) Chair 2023-2024

Greenhouse Committee (1990 – present Chair 1993-present)

NW Quad Greenhouse Design Committee Chair

I worked closely with campus planning, central administration, and FLAD architects on all aspects of the design of this 9000 ASF greenhouse facility.

Graduate Program Committee

Personnel Committee (Chair in 2016, 2017)

Student Awards Committee

Course and Curriculum Committee

6 faculty and 2 staff search and screen committees

Chair Plant Systematics Search (1994)

Chair, Plant Ecologist Search (2002)

Chair, Greenhouse Manager Search (2013)

Chair, Field Station Manager Search (2023)

PROFESSIONAL SERVICE:

2011-2022 North American Editor, ANNALS OF BOTANY

2009-2012 Associate Editor, OECOLOGIA

Reviewer for the following journals and granting agencies:

American Journal of Botany

American Midland Naturalist

American Naturalist

Annals of Botany

Conservation Biology

Current Biology

Ecology

Evolution

Functional Ecology

Heredity

International Journal of Botany

Journal of Heredity

National Geographic Society

National Science Foundation

New Phytologist

Plant Biology

Plant Species Biology

Proceedings of the Royal Society B

The Smithsonian Institution

Systematic Botany

External tenure and promotion referee

Clemson University

Indiana University – South Bend

Massey University, New Zealand

Ohio State University

Pennsylvania State University, Scranton

Southern Illinois University

Temple University

Trinity College, Dublin, Ireland

University of Minnesota-Morris

University of Virginia

University of Wisconsin-Madison
Worcester Polytechnic Institute

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

American Society of Naturalists
Botanical Society of America
Ecological Society of America
Society for the Study of Evolution