# Rose M. H. Driscoll

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## Education

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| (exp 2025) | Ph.D. candidate in Biology, University of Rochester, Rochester, NY<br>Program in Ecology, Evolution, Genetics and Genomics<br>Advisor: Dr. Jennifer A. Brisson |
| May 2021 | M.S. Biology, University of Rochester, Rochester, NY<br>Program in Ecology, Evolution, Genetics and Genomics |
| May 2017 | B.A. Biology, Reed College, Portland, OR<br>Alternate program with humanities/literature concentration<br>Undergraduate thesis: *Epigenetic regulation of aromatase underlies environmental sex determination in the cichlid fish* Pelvicachromis pulcher<br>Advisor: Dr. Susan C. P. Renn<br>Graduated Phi Beta Kappa |

## Publications

**Rose MH Driscoll**, Xiaomi Liu, Julia McDonough, James Schmidt, and Jennifer A Brisson. 2025. "Pea aphid wing plasticity variation has a multigenic basis." Journal of Heredity. https://doi.org/10.1093/jhered/esaf006

Lauren E Gregory, **Rose MH Driscoll**, Benjamin J Parker, and Jennifer A Brisson. 2025. "Impacts of body colour, symbionts and genomic regions on the pea aphid wing plasticity variation." Molecular Ecology, 34:5. https://doi.org/10.1111/mec.17660

**Rose MH Driscoll**,* Felix EG Beaudry,* Elissa J Cosgrove, Reed Bowman, John W Fitzpatrick, Stephan J Schoech, and Nancy Chen. 2024. "Allele frequency dynamics under sex-biased demography and sex-specific inheritance in a pedigreed jay population." Genetics, 227:3. https://doi.org/10.1093/genetics/iyae075

Benjamin J Parker, **Rose MH Driscoll**, Mary E Grantham, Jan Hrcek, and Jennifer A Brisson. 2021. "Wing plasticity and associated gene expression varies across the pea aphid biotype complex." Evolution, 75:1143-1149. https://doi.org/10.1111/evo.14174

**Rose MH Driscoll**, Josh J Faber-Hammond, Cynthia F O'Rourke, Peter L Hurd, and Suzy CP Renn. 2020. "Epigenetic regulation of gonadal and brain aromatase expression in a cichlid fish with environmental sex determination." General and Comparative Endocrinology 296. https://doi.org/10.1016/j.ygcen.2020.113538

* indicates shared first authorship.

## Presentations

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| June 2022 | **Rose MH Driscoll**, Julia McDonough, John H Werren, and Jennifer A Brisson. "Horizontal gene transfers from diverse taxa in the pea aphid genome and their association with plasticity." Evolution, Cleveland, OH (poster) |

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| August 2021 | **Rose MH Driscoll**, John H Werren, Jennifer A Brisson. "Detecting horizontal gene transfers from diverse taxa in the pea aphid genome." Great Lakes Annual Meeting of Evolutionary Genetics, virtual (presentation) |
| June 2021 | Benjamin J Parker, **Rose MH Driscoll**, Mary E Grantham, J. Hrcek, J. A. Brisson. "Wing plasticity and associated gene expression varies across the pea aphid biotype complex." Evolution, virtual (presentation) |
| May 2021 | **Rose MH Driscoll**, Benjamin J Parker, Mary E Grantham, Jan Hrcek, Jennifer A Brisson. "Variation in wing plasticity among the pea aphid host races." University of Rochester Genetics Day, virtual (selected talk) |
| Jul 2020 | **Rose MH Driscoll**, Benjamin J Parker, Mary E Grantham, Jan Hrcek, Jennifer A Brisson. "Variation in wing plasticity among the pea aphid host races." Great Lakes Annual Meeting of Evolutionary Genetics, virtual (presentation) |
| Jan 2018 | **Rose MH Driscoll**, Peter L Hurd, Suzy CP Renn. "Evidence for differential aromatase gene promoter methylation in a cichlid with pH-influenced sex determination." Society for Integrative and Comparative Biology, San Francisco, CA (poster) |
| Jun 2017 | **Rose MH Driscoll**, Peter L Hurd, Suzy CP Renn. "Evidence for aromatase gene promoter methylation in a cichlid with pH-influenced sex determination." Animal Behavior Society, Toronto, ON (poster) |
| Jan 2017 | **Rose MH Driscoll**, Peter L Hurd, Suzy CP Renn. "Evidence for aromatase gene and enhancer methylation in *P. pulcher*, a cichlid species with environmental sex determination." Society for Integrative and Comparative Biology, New Orleans, LA (poster) |
| Jan 2016 | **Rose MH Driscoll**, Peter L Hurd, Suzy CP Renn. "Aromatase genes and their enhancers in P. pulcher, a cichlid species with environmental sex determination." Society for Integrative and Comparative Biology, Portland, OR (poster) |

## Honors and Awards

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| Mar 2021 | University of Rochester Barnard Fellowship ($3,000) |
| May 2020 | NSF Graduate Research Fellowship ($102,000 over three years) |
| Mar 2018 | Robert L. and Mary L. Sproull Fellowship ($61,600 over two years) |
| 2013-2017 | Reed College Commendation for Excellence in Scholarship |
| May 2017 | Phi Beta Kappa |
| Apr 2017 | Reed College Post-Baccalaureate Research Award and award extension (Aug 2017) to expand upon undergraduate thesis (total $10,500) |
| Mar 2016 | Reed College President's Summer Fellowship in support of independent summer research in Pete Hurd's lab at the University of Alberta ($7,000) |
| Apr 2015 | Reed College Summer Undergraduate Research Fellowship in support of summer research in Suzy CP Renn's lab at Reed College ($4,000) |

## Teaching experience

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| Fall 2019 | **Applied Genomics Teaching Lab Assistant**, University of Rochester Biology Department, Rochester, NY (29 students) |
| Spr 2019 | **Introductory Biology Teaching Lab Instructor**, University of Rochester Biology Department, Rochester, NY (59 students in 4 sections) |
| Spr 2017; Spr 2018 | **Computational Biology Teaching Lab Assistant**, Reed College Biology Department, Portland, OR (approximately 16 students each year) |

## Mentoring

| **Date** | **Name** | **Subsequent positions** |
|---|---|---|
| Sept 2019-May 2020 | Brandon Courteau | PhD student in Biochemistry at UCSF |
| Sept 2019-May 2021 | Ling Liu | PhD student at Hong Kong University |
| Feb 2021-May 2022 | Julia McDonough | MS student at UMass Lowell |
| Oct 2021-Apr 2022 | Mayesa Khan | |
| Oct 2021-Sept 2022 | Abigail Seaton | |
| May 2022-Sept 2022 | Sean Lee | |
| July 2022-Sept 2022 | Charlotte Irwin | |

## Outreach and Service

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| Mar 2024 | Panelist at a webinar for prospective students on building a strong advisor/advisee relationship (136 attendees) |
| Oct 2018-Sept 2022 | Co-founder and leader of Diversity and Inclusion in the Biological Sciences (DIBS) group at UR |
| July 2022 | Designed and led a 1-hour aphid biology activity for disadvantaged elementary students in the Horizons program, alongside 4 labmates |
| May-July 2020 | Designed and produced an aphid biology virtual instruction module for disadvantaged high school students in the Upward Bound program, alongside 3 labmates |
| Nov 2019 | Conducted R (dplyr/ggplot2) workshops for the Larracuente lab group at UR (2 sessions, 2 hours each) |
| July 2019 | Conducted R (base R/dplyr/ggplot2) workshops for the Brisson lab group at UR (3 sessions, 2 hours each) |
| May-July 2019 | Designed and taught a weeklong aphid biology class (4 sessions, 1.5 hours each) for disadvantaged high school students in the Upward Bound program, alongside 2 labmates |
| Feb-Apr 2019 | Conducted R (dplyr/ggplot2) workshops for the Chen lab group at UR (4 sessions, 1-1.5 hours each) |

## Society membership

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| Fall 2024-present | American Genetics Association (student member) |
| Spr 2020-Fall 2024 | Society for the Study of Evolution (student member) |

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| Fall 2015-Fall 2018 | Society for Integrative and Comparative Biology (student in-training member) |
| Spr 2017 | Animal Behavior Society (student member) |

## Diversity statement

I strongly believe that the scientific community should be welcoming to us all. To this end, I work to educate myself and others on topics relevant to diversity, equity, and inclusion, and to use my privilege to uplift those who do not share it and amplify their voices. I strive to combat sexism, to be an antiracist, and to oppose discrimination in all its forms.