

School of Aquatic and Fisheries Sciences, 1122 Boat Street, University of Washington, Seattle, 98105

Email: simone.desroches@gmail.com | Phone: 208 874 2921 | Website: www.simonedr.com

Twitter: @DrSimoneDr | ORCID: 0000-0002-5360-8197 | Citations: 1770 | H-index: 13

Academic Employment

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|---------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2021-pr | Research Scientist | Citizen Science Shoreline Recovery Monitoring Program School of Aquatic and Fisheries Sciences Washington Sea Grant & University of Washington, Seattle |
| 2020-21 | Postdoctoral Fellow | Citizen Science Shoreline Recovery Monitoring Program School of Aquatic and Fisheries Sciences Washington Sea Grant & University of Washington, Seattle |
| 2019-20 | Postdoctoral Fellow | Urban Ecology & Evolution Department of Urban Design & Planning University of Washington, Seattle |
| 2016-19 | Postdoctoral Fellow | Institute for the Study of Ecological & Evolutionary Climate Impacts University of California, Santa Cruz |
| 2015-16 | Adjunct Faculty | General Ecology Department of Biology Saint Mary's College of California, Moraga |
| 2014-15 | Visiting Scholar | Department of Environmental Science, Policy, & Management University of California, Berkeley |

Education

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|------|-----------|------------------------------------------------------------------|
| 2014 | PhD | Department of Biological Sciences University of Idaho |
| 2007 | BSc, Hon. | Ecology & Environmental Biology University of British Columbia |

Publications

*authors contributed equally,** undergraduate authors

- 20 | Des Roches, S*, RR Robinson*, MT Kinnison, EP Palkovacs. **Accepted August 2021**. The legacy of predator threat shapes prey foraging behaviour. *Oecologia*.
- 19 | Stuble, KL, S Des Roches, A Ambrose, K Brown, H Cooper, T Hilton, B Sinervo, LR Fox. **2021**. Regional networks of biological field stations to study climate change. *BioScience*. 71:8. doi: 10.1093/biosci/biab048
- 18 | Des Roches, S, L Pendleton, B Shapiro, EP Palkovacs. **2021**. Loss of intraspecific variation impacts nature's contributions to people. *Nature Ecology & Evolution*. 5: 574–582. doi: 10.1038/s41559-021-01403-5
- 17 | Des Roches, S, KI Brans, MR Lambert, LR Rivkin, AM Savage, CJ Schell, C Correa, L De Meester, SE Diamond, NB Grimm, NC Harris, AP Hendry, L Govaert, MTJ Johnson, J Munshi-South, EP Palkovacs, M Szulkin, MC Urban, BC Verrelli, M Alberti. **2021**. Socio-eco-evolutionary dynamics in cities. *Evolutionary Applications*. 14: 248-267. doi: 10.1111/eva.13065
- 16 | Lambert, MR, KI Brans, S Des Roches, CM Donihue, SE Diamond. **2020**. Adaptive evolution in cities: progress and misconceptions. *Trends in Ecology and Evolution*. 36: 239-257. doi: 10.1016/j.tree.2020.11.002
- 15 | Alberti, M, EP Palkovacs, S Des Roches, L De Meester, KI Brans, L Govaert, NB Grimm, NC Harris, AP Hendry, CJ Schell, M Szulkin, J Munshi-South, MC Urban, BC Verrelli. **2020**. The complexity of urban eco-evolutionary dynamics. *BioScience*. 70: 772–793. doi: 10.1093/biosci/biaa079
- 14 | Schell, CJ, K Dyson, TL Fuentes, S Des Roches, NC Harris, DS Miller, CA Woefle-Erskine, MR Lambert. **2020**. The ecological and evolutionary consequences of systemic racism in urban environments. *Science*. 369: eaay4497. doi: 10.1126/science.aay4497

Publications continued on next page

Publications (continued)

- 12 | **Des Roches, S**, MA Bell, EP Palkovacs. **2020**. Climate-driven habitat change causes evolution in Threespine Stickleback. *Global Change Biology*. 26: 597-606. doi.org/10.1111/gcb.14892
- 11 | **Des Roches, S**, DP Post, NE Turley, JK Bailey, AP Hendry, MT Kinnison, JA Schweitzer, EP Palkovacs. 2018. The ecological importance of intraspecific variation. *Nature Ecology & Evolution*. 2:57-64. doi:10.1038/s41559-017-0402-5
- 10 | **Des Roches, S**, R Sollmann, A Rothstein, K Calhoun**, EB Rosenblum. **2017**. Survival by genotype: patterns at *Mc1r* are not black and white at the White Sands ecotone. *Molecular Ecology*. 26:320-9. doi: 10.1111/mec/13894
- 09 | **Des Roches, S**, LJ Harmon, EB Rosenblum. **2015**. Colonization of a novel habitat island leads to trophic niche shifts in three desert lizard species. *Oikos*. 125:343-53. doi: 10.1111/oik.02493
- 08 | Refsnider, JM, **S Des Roches**, EB Rosenblum. **2015**. Evidence for ecological release over a fine spatial scale in a lizard from the White Sands formation. *Oikos*. 124:1624-31. doi: 10.1111/oik.02406
- 07 | **Des Roches, S**, M Brinkmeyer**, LJ Harmon, EB Rosenblum. 2015. Ecological release and directional change in White Sands lizard trophic ecomorphology. *Evolutionary Ecology*. 29:1-16. doi: 10.1007/s10682-014-9740-9
- 06 | **Des Roches, S**, J Torresdal**, T Morgan**, LJ Harmon, EB Rosenblum. **2014**. Beyond black and white: divergent behaviour and performance in three rapidly evolving lizard species at White Sands. *Biological Journal of the Linnean Society*. 11:169-182. doi: 10.1111/bij.12165
- 05 | **Des Roches, S**, J Shurin, D Schluter, & LJ Harmon. **2013**. Ecological and evolutionary effects of stickleback on community structure. *PLoS ONE*. 8: e59644. doi: 10.1371/journal.pone.0059644
- 04 | Rosenblum, EB, JW Brown, **S Des Roches**, J Eastman, K Hardwick, T Hether, M Pennell, B Sarver, LJ Harmon. **2012**. Goldilocks meets Santa Rosalia: an ephemeral speciation model explains patterns of diversification across time scales. *Journal of Evolutionary Biology*. 39:255-61. doi: 10.1007/s11692-012-9171-x
- 03 | **Des Roches, S**, JM Robertson, LJ Harmon, EB Rosenblum. **2011**. Ecological release of White Sands lizards. *Ecology and Evolution*. 1:571-8. doi: 10.1002/ece3.50
- 02 | Yoder, JB, E Clancey, **S Des Roches**, JM Eastman, L Gentry, WKW Godsoe, T Hagey, D Jochimsen, BP Oswald, JM Robertson, BAJ Sarver, JJ Schenk, SF Spear, LJ Harmon. **2010**. Ecological opportunity and the origin of adaptive radiations. *Journal of Evolutionary Biology*. 23:1581-96. doi: 10.1111/j.1420-9101.2010.02029.x
- 01 | Harmon, LJ*, B Matthews*, **S Des Roches****, J Chase, J Shurin, D Schluter. **2009**. Evolutionary diversification in stickleback affects ecosystem functioning. *Nature*. 458:1167-70. doi: 10.1038/nature07974

Awards and Grants

Postdoctoral (total: \$150,000)

| | | |
|---------|---------------------------------------------------------------------------|-----------|
| 2016-18 | Study for Ecological Effects & Climate Impacts Fellowship UC Santa Cruz | \$115,000 |
| 2016-17 | Packard Endowment Award co-PIs: E Palkovacs, S Munch UC Santa Cruz | \$15,000 |
| 2014-15 | Berkeley Connect Fellowship UC Berkeley | \$22,000 |

Awards and Grants continued on next page

Awards and Grants (continued)

Graduate (total: \$92,391)

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|---------|---------------------------------------------------------------------|----------|
| 2010-13 | Alexander Graham Bell Postgraduate Scholarship – Doctoral NSERC | \$63,000 |
| 2011 | Roosevelt Grant American Museum of Natural History | \$1,600 |
| 2010 | Gaige Grant American Society of Ichthyologists and Herpetologists | \$500 |
| 2009 | Alexander Graham Bell Postgraduate Scholarship - Masters NSERC | \$17,200 |
| 2009-11 | Student Grant Program Research Grant University of Idaho | \$8,778 |
| 2009,11 | Student Travel Grant University of Idaho | \$1,313 |

Teaching

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| 2019 | Instructor: | URBDP 404/504: Intro to GIS : lecture & laboratory University of Washington <i>Introduction to practical knowledge of Geographical Information Systems and Science (using ArcGIS) for current and future coursework in urban planning.</i> <i>1 quarter x 1 section of 1-hr lecture/wk + 2 sections of 3-hr lab/wk (~40 students total)</i> |
| 2015-16 | Instructor: | BIOL 125: General Ecology : lecture & laboratory St Mary's College of California <i>Overview of physiological, population, community, ecosystem, conservation, and evolutionary ecology. Laboratory including experiments/design, statistics, and reports.</i> <i>3 semesters x 2 sections of 3.25-hr lecture/wk + 2-3 sections of 3-hr lab/wk (~100 students total)</i> |
| 2014-15 | Mentor: | ESPM 98BC: Berkeley Connect Environmental Science : discussion group UC Berkeley <i>Discussions on primary research in environmental science, professional development, campus networking and connectedness, skills for success</i> <i>2 semesters x 2 sections of 1-hr section/wk (~80 students total)</i> |
| 2013 | Lecture Asst: | ESPM 152: Global Change Biology : discussion group UC Berkeley <i>Discussions on recent primary research, case studies on topics of anthropogenic changes to the global environment its responses as well as conservation strategies</i> <i>1 semester x 1-hr section/wk (~25 students total)</i> |
| 2011-12 | Tutor: | BIOL 301: Junior Directed Studies University of Idaho <i>Data analysis in R, literature review, independent study;</i> <i>1 semester x 1-hr/wk (4 students total)</i> |
| 2009-12 | Tutor: | TRiO: Teaching & Academic Assistance Program : tutoring University of Idaho <i>Classes include: Intro Biology (majors & non-majors), Ichthyology, Biostatistics, Structure & Function, Genetics, Ecology, Evolutionary Biology, Plant Biology;</i> <i>7 semesters x 1-5 hr/wk (16 students total)</i> |
| 2009 | Teaching Asst: | FISH 481: Senior Ichthyology : laboratory University of Idaho <i>Anatomy, taxonomy, physiology, genetics and zoogeography of fishes;</i> <i>1 semester x 2 sections of 3-hr lab/wk (~40 students total)</i> |
| 2008 | Teaching Asst: | BIOL 114: Organisms and Environments : laboratory University of Idaho <i>Overview of ecology and detailed foundation in evolutionary processes, diversity of life;</i> <i>1 semester x 1 section of 3-hr lab/wk (~25 students total)</i> |

Mentorship

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| 2021-pr | B Masson Belevue Big Picture School, Belevue, WA |
| 2017-19 | A Repetto, M Rodriguez, Erik Beckman University of California, Santa Cruz |
| 2016-17 | J McDonald, K Dodsworth, A Keig St Mary's College of California |
| 2012-15 | J Howells, A Warner, S Segura (Lopez), M Sadhu, E Harris University of California, Berkeley |
| 2009-14 | C Leatherman, K Hoversten, J Torresdal, I Hoyer, M Brinkmeyer, T Morgan, K Pohl University of Idaho |
| 2007 | J Sashaw University of British Columbia |

Certifications & Workshops

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| 2021 | <i>Co-organizer:</i> Nearshore Restoration Summit Puget Sound Partnership |
| 2019 | <i>Co-organizer:</i> Urban Eco-Evo Dynamics Research Network Workshop University of Washington |
| 2019 | <i>Participant:</i> Data Acquisition in Geographic Information Systems University of California, Santa Cruz |
| 2015 | <i>Participant:</i> Facilitating Interactive Discussion Workshop University of California, Berkeley |
| 2014 | <i>Participant:</i> Software Carpentry Boot-camp for Women in STEM University of California, Berkeley |
| 2013 | <i>Participant:</i> Wilderness Medicine Institute of National Outdoor Leadership School |
| 2011 | <i>Participant:</i> International Tutor Training Certification University of Idaho |

Synergistic Activities & Outreach

*presentations available for download at www.simonedr.com/lectures

Peer Review

Science, Global Change Biology, Nature Communications, Evolutionary Applications, Evolution, Proceedings of the Royal Society B, Molecular Ecology, The American Naturalist, Ecosphere, Herpetologica, Journal of Anatomy, Journal of Animal Ecology, PLoS One, Biological Journal of the Linnean Society, Methods in Ecology & Evolution, Freshwater Science, Ecology and Evolution, Evolutionary Ecology, Oikos

Outreach Activities

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| 2020 | <i>Co-organizer:</i> Shorecrab Variation: Art-Science workshop for citizen scientists* WA Sea Grant |
| 2019-pr | Volunteer Burke Museum Herpetology Collections University of Washington |
| 2019-20 | Member Anti-Discrimination and Harassment Working Group University of Washington |
| 2017-18 | Mentor WATCH (Watsonville Area Teens Conserving Habitats) Monterey Bay Aquarium |
| 2011-15 | Organizer/Leader White Sands Institute 1-Day camp White Sands National Monument |
| 2009-10 | Organizer/Leader White Sands Institute Workshop White Sands National Monument |
| 2009-12 | Elected Member Graduate & Professional Student Association University of Idaho Roles: Biology Dept. Rep.; Senator at Large; Committees including Teaching & Excellence, Curriculum |

K-12 Lectures

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| 2020 | Science in Art; Art in Science* Eagleview Middle School, Boulder, CO (remote) |
| 2020 | Adaptation in Desert Lizards* St Augustine's Elementary School, Vancouver, BC (remote) |
| 2020 | Adaptation in Desert Lizards* Skype a Scientist Courtyard Elementary, Sacramento, CA (remote) |
| 2011 | 7 th Grade Reptile Lecture Garfield Middle School |

Media Engagement

- 2021 UCSC Press Release: <https://news.ucsc.edu/2021/03/intraspecific-variation.html>
- 2020 UW Burke Museum: www.burkemuseum.org/news/qa-biological-illustrator
- 2020 Popular Science: www.popsci.com/story/animals/fish-super-urinator/
- 2020 Inside Science: insidescience.org/news/bold-fish-maintain-ecosystem-their-waste
- 2019 UCSC Press Release: news.ucsc.edu/2019/11/stickleback.html?ref=recent
- 2020 UCSC Press Release: news.ucsc.edu/2017/12/species-variation.html
- 2019 PBS NOVA: www.pbs.org/wgbh/nova/article/anole-lizard-predator-competition/
- 2015 White Sands National Monument "Field Note": www.nps.gov/experiences/lizards-whsa.html
- 2014 Japanese National Television

Other Contributions

- 2021 Shoreline Restoration & Ecology Display | Vashon Nature Center, Washington
- 2019 Logo Design | Limnology and Oceanography WikiProject
- 2018 Logo Design | Ecological Society of America Early Career Scientists
- 2014 Educational software concept design | Tree of Life Software
- 2007-14 T-shirt graphic design | Nature Conservancy & Plum Clothing Company, Canada
- 2009 Arctic Sea Ice educational package graphic design | Arctic Eider Society, Canada

Dissemination

*presentations available for download at www.simonedr.com/lectures

Invited Presentations

- 2021 Puget Sound Ecosystem Monitoring Program | Puget Sound Partnership, Olympia, WA (remote)
- 2021 Lunch & Learn | Washington Sea Grant, Seattle, WA (remote)
- 2021 Volunteer Education and Training meeting | Sound Water Stewards, Tacoma, WA (remote)
- 2021 Art, Illustration, Visualization, in Science | Ecology Group, Irvine, CA (remote)
- 2021 Behavior, Ecology, & Evolution Research Group | California State Northridge, CA (remote)
- 2021 Division of Biological Sciences Department Seminar | University of Montana, Missoula, MT (remote)
- 2020 Restoration & Monitoring at Seahurst Park* | Environmental Science Center, Burien, WA (remote)
- 2020 Data Visualization* | Graduate Scientific Writing | University of California, Santa Cruz, CA (remote)
- 2020 School of Environmental & Forest Sciences Department Seminar | University of Washington, Seattle
- 2019 Cities Ecology and Evolution Class | University of Washington, WA
- 2019 Urban Ecology and Evolution Lab | University of Washington, WA
- 2019 Natural Capital Lab | Stanford University, CA
- 2019 Data Visualization | High-Performance Computing Class | University of California, Santa Cruz, CA
- 2018 Data Visualization | American Fisheries Society Subunit | University of California, Santa Cruz, CA
- 2018 Ecology and Evolutionary Biology Department Seminar | University of California, Santa Cruz, CA
- 2017 Wildlife and Conservation Seminar | University of California, Berkeley, CA
- 2016 Environmental Science Series | Saint Mary's College of California, CA
- 2009-14 Park Ranger Presentation | White Sands National Monument, NM
- 2013 Global Change Biology | University of California, Berkeley, CA
- 2012 Introductory Evolutionary Biology | Harvard University, MA (remote)
- 2011 Perspectives in Biology | University of Idaho, ID

Conference Presentations

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| 2020 | American Society of Naturalists meeting Asilomar, CA |
| 2019 | University of Washington Biology Postdoc Mini-Symposium Seattle, WA |
| 2018 | Ecological Society of America annual meeting New Orleans, LO |
| 2018 | American Society of Naturalists meeting Asilomar, CA |
| 2017 | Canadian Society of Zoologists annual meeting Invited Symposia Winnipeg, MB, Canada |
| 2017 | Canadian Society for Ecology and Evolution annual meeting Victoria, BC, Canada |
| 2014 | American Society of Naturalists meeting Asilomar, CA |
| 2013 | Ecological Society of America annual meeting Minneapolis, MN |
| 2013 | Society for Integrative and Comparative Biology annual meeting San Francisco, CA |
| 2012 | Joint European, Canadian, and American Evolution Meeting Ottawa, ON, Canada |
| 2010 | Society for the Study of Evolution annual meeting Portland, OR |
| 2010 | Society for Integrative and Comparative Biology annual meeting Seattle, WA |
| 2009 | Society for the Study of Evolution annual meeting Moscow, ID |

References

Primary

Dr Eric P Palkovacs (postdoctoral research) | Professor | Department of Ecology & Evolutionary Biology | University of California, Santa Cruz 95060 | Phone: +1 831 502 7387 | Email: epalkova@ucsc.edu

Dr Erica B Rosenblum (PhD teaching, research) | Associate Professor | Department of Environmental Science Policy & Management | Museum of Vertebrate Zoology (Affiliated) | University of California, Berkeley 94720
Phone: +1 510 642 2108 | Email: rosenblum@berkeley.edu

Dr Chris Schell (collaborative research, DEI) | Assistant Professor | Department of Environmental Science Policy & Management | University of California, Berkeley 94720 | Phone: +1 626 590 3595 | Email: cjschell@berkeley.edu

Jason Toft (postdoctoral research, community science) | Senior Research Scientist | School of Aquatic and Fisheries Sciences | University of Washington, Seattle 98105 | Phone: +1 206 221 5460 | Email: tofty@uw.edu

Additional References

Dr Luke J Harmon (PhD research) | Professor | Department of Biological Sciences | University of Idaho, Moscow 83844 | Phone: +1 208 885 0346 | Email: lukeh@uidaho.edu

Dr Michael P Marchetti (adjunct teaching) | Professor, Endowed Chair | Department of Biological Sciences | St Mary's College of California, Moraga, 94575 | Phone: +1 530 966 0647 | Email: mpm9@stmarys-ca.edu

Dr Marina Alberti (postdoctoral research/teaching) | Professor | Urban Design and Planning | University of Washington, Seattle 98105 | Phone: +1 206 616 8667 | Email: malberti@uw.edu