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### Academic Employment

2021-pr	Research Scientist	Citizen Science Shoreline Recovery Monitoring Program   School of Aquatic and Fishery Sciences   Washington Sea Grant & University of Washington, Seattle
2020-21	Postdoctoral Fellow	Citizen Science Shoreline Recovery Monitoring Program   School of Aquatic and Fishery 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

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

- 23 | Verrelli BC, M Alberti, **S Des Roches**, N Harris, AP Hendry, MTJ Johnson, AM Savage, A Charmantier, KM Gotanda, L Govaert, LS Miles, LR Rivkin, KM Winchell, KI Brans, C Correa, SE Diamond, B Fitzhugh, NB Grimm, S Hughes, JM Marzluff, J Munshi- South, C Rojas, JS Santangelo, CJ Schell, JA Schweitzer, M Szulkin, MC Urban, Y Zhou, C Ziter. *In Press*. A global horizon scan for urban evolutionary ecology. *Trends in Ecology and Evolution*.
- 22 | **Des Roches, S**, JR LaFuente, HS Faulkner, JR Morgan, BS Perla, M Metler, MN Dethier, JD Toft. **2022**. Shoreline armor removal can restore variability in intertidal ecosystems. *Ecological Indicators*, 140, p.109056. doi: 10.1016/j.ecolind.2022.109056
- 21 | Davis, HR, **S Des Roches**, RA Anderson, AD Leaché. **2022**. Population expansion, divergence, and persistence in Western Fence Lizards (*Sceloporus occidentalis*) at the northern extreme of their distributional range. *Scientific Reports* 12: 1-13. doi: 10.1038/s41598-022-10233-9
- 20 | **Des Roches, S\***, RR Robinson\*, MT Kinnison, EP Palkovacs. **2022**. The legacy of predator threat shapes prey foraging behaviour. *Oecologia*. 198: 79–89. doi: 10.1007/s00442-021-05073-9
- 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

### Publications (continued)

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- 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
- 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

Publications continued on next page

## Publications (*continued*)

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- 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

## Teaching

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

## Awards and Grants

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### 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

### Graduate (total: \$92,391)

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

## Mentorship

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2021-pr	B Masson   Bellevue Big Picture School, Bellevue, WA
2021-pr	P Barry   University of Otago, Dunedin, New Zealand (remote)
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, Canada

## 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

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\*presentations available for download at [www.simonedr.com/lectures](http://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, Diversity & Distributions

**Outreach Activities**

- 2020 Co-organizer: 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**

- 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<sup>th</sup> 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](http://www.burkemuseum.org/news/qa-biological-illustrator)  
 2020 Popular Science: [www.popsci.com/story/animals/fish-super-urinator/](http://www.popsci.com/story/animals/fish-super-urinator/)  
 2020 Inside Science: [insidescience.org/news/bold-fish-maintain-ecosystem-their-waste](http://insidescience.org/news/bold-fish-maintain-ecosystem-their-waste)  
 2019 UCSC Press Release: [news.ucsc.edu/2019/11/stickleback.html?ref=recent](http://news.ucsc.edu/2019/11/stickleback.html?ref=recent)  
 2020 UCSC Press Release: [news.ucsc.edu/2017/12/species-variation.html](http://news.ucsc.edu/2017/12/species-variation.html)  
 2019 PBS NOVA: [www.pbs.org/wgbh/nova/article/anole-lizard-predator-competition/](http://www.pbs.org/wgbh/nova/article/anole-lizard-predator-competition/)  
 2015 White Sands National Monument "Field Note": [www.nps.gov/experiences/lizards-whsa.html](http://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**

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\*presentations available for download at [www.simonedr.com/lectures](http://www.simonedr.com/lectures)

**Invited Presentations**

- 2022 Keynote Speaker: Ecology, Evolution & Behavior Graduate Student Symposium | Michigan State University, East Lansing, MI  
 2022 Foundations in Ecology & Systematics Guest Lecture | University of Washington, Seattle, WA  
 2022 Puget Sound Ecosystem Monitoring Program | Puget Sound Partnership, Olympia, WA (remote)  
 2022 Ecology & Evolution Graduate Program Seminar | Rutgers University, New Brunswick, NJ (remote)

*Invited Presentations continued on next page*

**Invited Presentations (*continued*)**

- 2022 Advanced Data Visualization Guest Lecture | University of Washington, Bothell, WA
- 2022 Urban Evolutionary Biology Guest Lecture | University of British Columbia, Vancouver, BC (remote)
- 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**

- 2022 Salish Sea Ecosystem Conference | Remote
- 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

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### 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](mailto:epalkova@ucsc.edu)

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

### Additional

**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](mailto:lukeh@uidaho.edu)

**Dr Michael P Marchetti (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](mailto: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](mailto:malberti@uw.edu)