

# Kathryn G. Turner

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## Education

2015	University of British Columbia (UBC), Vancouver, BC	PhD Botany Advisor: Loren H. Rieseberg
2005	University of Texas, Austin, TX	BS Plant Biology
2005	University of Texas, Austin, TX	BA Asian Studies

## Professional appointments

2019	( <i>Beginning October</i> ) Assistant Professor in Ecological Genetics, Department of Biological Sciences, College of Science and Engineering, Idaho State University
2017	Eberly Research Fellow, Department of Biology, Eberly College of Science, Pennsylvania State University (PSU), co-advisors: Jesse R. Lasky & George H. Perry
2015	US National Science Foundation (NSF) Postdoctoral Research Fellow in Biology, Department of Bioagricultural Sciences and Pest Management, Colorado State University (CSU), co-sponsors: Ruth A. Hufbauer & John K. McKay

## Grants, fellowships, and awards

2019	PSU Institutes for Energy and the Environment Seed Grant, co-PI/lead writer with Jesse Lasky, George Perry, Laura Weyrich, Carolee Bull, \$50,000 USD
2017-2019	Eberly Research Fellow, PSU, \$10,000 USD plus salary
2017	Seal of Excellence, European Commission, Horizon 2020, for high quality project proposal, with Mario Vallejo-Marin (University of Stirling)
2016	Special Event Award, American Genetics Association, for <i>Genomics of Adaptation to Human Contexts Symposium</i> , PI (co-organizers: Brook Moyers & Chris Schell, CSU), \$4,000 USD
2016	Trainee-Organized Symposia grant, Genetics Society of America, for <i>Genomics of Adaptation to Human Contexts Symposium</i> (co-organizers Brook Moyers & Chris Schell, CSU), \$2,000 USD
2015	microMORPH training grant, NSF Research Coordination Network, \$3,500 USD
2015-2017	Postdoctoral Research Fellowship in Biology, Research Using Biological Collections, NSF, \$138,000 USD
2012-2013	Faculty of Science Graduate Award, UBC, \$9,000 CAD

- 2011 Global Invasions research exchange, NSF Research Coordination Network, \$2,500 USD
- 2011 Visiting scholar grant, University of Montpellier, Systèmes Intégrés en Biologie, Agronomie, Géosciences, Hydrosociences, Environnement, €750 EUR
- 2011 Research Mobility grant, Vice President Research Initiative, UBC, \$1,500 CAD
- 2009-2011 Pacific Century Graduate Scholarship, UBC (*Declined*), \$34,000 CAD
- 2009-2012 Graduate Research Fellowship, NSF, \$90,000 USD plus tuition
- 2008 Graduate Entrance Scholarship, UBC, \$3,100 CAD

## Publications

Google Scholar: <http://bit.ly/2xzX1Dw>

Impact Story: <http://bit.ly/2wZ8Va9>

### Peer-reviewed (\*undergraduate mentee)

1. Rosche C, Hensen I, Schaar A, ...**Turner KG**, ...Shah MA. 2019. Climate outweighs native vs. nonnative range-effects for genetics and common garden performance of a cosmopolitan weed. *Ecological Monographs*, e01386. doi: [10.1002/ecm.1386](https://doi.org/10.1002/ecm.1386)
2. Monroe JG, Gill BA, **Turner KG**, McKay JK. 2019. Life history strategies predicted by satellite-detected drought in the genus *Heliophila*. *New Phytologist* (*accepted*). [PRE-PRINT] bioRxiv 493270; doi: <https://doi.org/10.1101/493270>.
3. Endriss SB, Vahsen ML, Bitume EV, Monroe JG, **Turner KG**, Norton AP, Hufbauer RA. 2019. The importance of growing up: Juvenile environment influences dispersal of individuals and their neighbours. *Ecology Letters* **22**: 45–55. <https://doi.org/10.1111/ele.13166>
4. **Turner KG**, Huang DI, Cronk QCB, Rieseberg LH. 2018. Homogenization of populations in the wildflower Texas bluebonnet (*Lupinus texensis*). *Journal of Heredity* 109:152-161. doi: 10.1093/jhered/esx094. <http://bit.ly/2jVFhOA>.
5. **Turner KG**, Nurkowski K\*, Rieseberg LH. 2017. Gene expression and drought response in an invasive thistle. *Biological Invasions*, 19:875-893. doi:10.1007/s10530-016-1308-x.
6. **Turner KG**, Fréville H, Rieseberg LH. 2015. Adaptive plasticity and niche expansion in an invasive thistle. *Ecology and Evolution*, 5:3183–3197. doi: 10.1002/ece3.1599.
7. Hodgins KA, Bock DG, Hahn MA, Heredia SM, **Turner KG**, Rieseberg LH. 2015. Comparative genomics in the Asteraceae reveal little evidence for parallel evolutionary change in invasive taxa. *Molecular Ecology*, 24:2226–2240. doi: 10.1111/mec.13026.
8. Bock DG, Caseys C, Cousens RD, Hahn MA, Heredia SM, Hubner S, **Turner KG**, Whitney KD, Rieseberg LH. 2015. What we still don't know about invasion genetics. *Molecular Ecology*, 24:2277–2297. doi: 10.1111/mec.13032.
9. **Turner KG**, Hufbauer RA, Rieseberg LH. 2014. Rapid evolution of an invasive weed. *New Phytologist* 202:309–321. doi: 10.1111/nph.12634.
10. Lai Z, Kane N, Kozik A, Hodgins KA, Dlugosch KM, Barker M, Matvienko M, Yu Q, **Turner KG**, Pearl SA, Bell GDM, Zou Y, Grassa CJ, Guggisberg A, Adams KL, Anderson JV, Horvath DP, Kesseli RV, Burke JM, Michelmore RW, Rieseberg LH. 2012. Genomics of Compositae weeds: EST libraries, microarrays, and evidence of introgression. *American Journal of Botany*, 99:209-218. doi: 10.3732/ajb.1100313.
11. Mohr G, Del Campo M, **Turner KG**, Gilman B, Wolf R, Lambowitz AM. 2011. High-throughput genetic identification of functionally important regions of the yeast DEAD-

box protein Mss116p. *Journal of Molecular Biology*: 413:952–972. doi: 10.1016/j.jmb.2011.09.015.

12. Gross BL, **Turner KG**, Rieseberg LH. 2007. Selective sweeps in the homoploid hybrid species *Helianthus deserticola*: Evolution in concert across populations and across origins. *Molecular Ecology*, 16:5246-5258. doi: 10.1111/j.1365-294X.2007.03574.x.
13. Barber JC, Francisco-Ortega J, Santos-Guerra A, **Turner KG**, Jansen RK. 2002. Origin of Macaronesian *Sideritis* L. (*Lamioideae: Lamiaceae*) inferred from nuclear and chloroplast sequence datasets. *Molecular Phylogenetics and Evolution*, 23:293 - 306. doi: 10.1016/S1055-7903(02)00018-0.

#### *Non-peer-reviewed*

1. Hendrick B, Heberling M, Meineke E, **Turner KG**,... Davis C. 2019. Digitization and the future of natural history collections. [PRE-PRINT] PeerJ Preprints: <https://peerj.com/preprints/27859>
2. **Turner KG**, Moyers BT, Schell CJ. 2018. Editorial: Genomics of adaptation to human contexts. *Journal of Heredity*, 109:101-102. doi: 10.1093/jhered/esx113. <http://bit.ly/2Gkf9qf>.
3. **Turner KG**, Grassa CJ. 2014. Complete plastid genome assembly of invasive plant, *Centaurea diffusa*. [PRE-PRINT] bioRxivdoi: <http://dx.doi.org/10.1101/005900>
4. **Turner KG**, Price S. 2005. Fighting the Invasion: Salt Cedar at Cibola National Wildlife Refuge. US Fish and Wildlife Service. Pamphlet.

### Conferences

#### *Symposia organized*

- |      |                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------|
| 2016 | Lead organizer, <i>Genomics of Adaptation to Human Contexts Symposium</i> , CSU, Fort Collins, CO.     |
| 2014 | Assistant organizer, <i>Invasion Genetics: The Baker and Stebbins Legacy Symposium</i> , Asilomar, CA. |

#### *Talks (invited or competitive)*

1. **Turner KG**. 2019. Society for Herbarium Curators/iDigBio Symposium, Botany Conference, Tucson, AZ.
2. **Turner KG**. 2018. Organized Oral Session (Herbarium data in an era of ecological change), Ecological Society of America Conference, New Orleans, LA.
3. **Turner KG**. 2016. Invited symposia (Genetic variability in invasive plants), Northern Rockies Invasive Plant Council Conference, Boise, ID.
4. **Turner KG**, Huang DI, Cronk Q, Rieseberg LH. 2016. Society for the Study of Evolution sponsored Spotlight Session (Understanding history and process in rapid diversification with genomic data), Evolution Conference, Austin, TX.
5. **Turner KG**, Fréville H, Huffbauer RA, Rieseberg LH. 2012. Organized Oral Session (Contemporary evolution amid the human enterprise), Ecological Society of America Conference, Portland, OR.

#### *Talks (contributed)*

1. **Turner KG**. 2019. Evolution Conference, Providence, RI.
2. **Turner KG**. 2017. Evolution Conference, Portland, OR.

3. **Turner KG**, Huang DI, Cronk Q, Rieseberg LH. 2016. *Genomics of Adaptation to Human Contexts Symposium*, CSU, Fort Collins, CO.
4. **Turner KG**, Hufbauer RA, Rieseberg LH. 2013. Ecological Society of America Conference, Minneapolis, MN.
5. **Turner KG**, Hufbauer RA, Rieseberg LH. 2011. Ecological Society of America Conference, Austin, TX.
6. **Turner KG**. 2008. UBC/Simon Fraser University/University of Victoria Fall Retreat, Brackendale, BC.

*Posters (awarded or invited)*

1. **Turner KG**, Gutaker R, Burbano H, Hufbauer R, McKay J. 2017. NSF Symposium for Postdoctoral Research Fellows in Biology: Research Using Biological Collections, Cambridge, MA. *Invited*.
2. **Turner KG**, Tian A, Zoubarev A, Ch'ng C, Hodgins KA. 2012.
  - Evo-Wibo Conference, Port Townsend, WA. *Award*.
  - UBC Botany Graduate Student Symposium, Vancouver, BC. *Canadian Botanical Association 1<sup>st</sup> place poster award*.
3. **Turner KG**, Imhoff V, McDermott JM, Linder CR. 2004. Evolution Conference, Fort Collins, CO. *Society for the Study of Evolution Undergraduate Diversity travel award*.

**Invited talks**

1. **Turner KG**. 2019. Biological Sciences Seminar Series, Idaho State University, Pocatello, ID.
2. **Turner KG**. 2019. Biology Departmental Seminar Series, Rochester University, Rochester, NY.
3. **Turner KG**. 2018. Plant, Soil, and Microbial Sciences Departmental Seminar Series, Michigan State University, East Lansing, MI.
4. **Turner KG**. 2016. Biological and Environmental Sciences Research Seminar Series, School of Natural Sciences, University of Stirling, Stirling, United Kingdom.
5. **Turner KG**. 2014. Bioagricultural Sciences and Pest Management Departmental Seminar Series, CSU, Fort Collins, CO.
6. **Turner KG**. 2011. Centre d'Ecologie Fonctionnelle et Evolutive at the Centre National de la Recherche Scientifique, Montpellier, France.

**Campus talks**

1. **Turner KG**. 2019. Microbiome Center, PSU, State College, PA.
2. **Turner KG**. 2018. Ecology Program, PSU, State College, PA.
3. **Turner KG**. 2017. Plant Biology Seminar, Biology Department, PSU, State College, PA.
4. **Turner KG**. 2015. Botany Department, UBC, Vancouver, BC.

**Teaching and mentoring**

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|------|-------------------------------------------------------------|
| 2019 | Guest lecturer, Genetics, Idaho State University            |
| 2018 | Panel speaker, Science Communication (graduate course), PSU |

- 2017 Co-organizer, Biological Summer Undergraduate Research Experience (BSURE), mentorship program for advanced undergraduates, CSU
- 2017 Guest lecturer, Ecology (Honors), CSU
- 2016 Assistant, Software Carpentry (<http://software-carpentry.org/>) workshop, CSU
- 2016 The Institute for Learning and Teaching workshops, CSU
- 2009-2014 Teaching assistant/lecturer, Plants and People (introductory and ethnobotany, 4 semesters), UBC
- 2009 Instructional skills workshop, UBC
- 2008-2012 As PhD student, mentored 8 undergraduates (1 co-author), 1 MSc student in greenhouse and lab-based research, UBC
- 2006-2007 As Lab Manager, mentored 2 undergraduates, 1 post-baccalaureate in greenhouse and lab-based research, Indiana University

### Science communication

- 2018- Contributing blogger for *The Molecular Ecologist* (<http://www.molecularecologist.com/>). To date: 3 posts/~1500 views
- 2017- AAAS SciLine expert contact for journalists
- 2017 Press about Cheerios, bees, and non-native plants
  - Print: Washington Post <http://wapo.st/2mSdrq2>, Times of London <http://bit.ly/2phN7Fy>, LifeHacker <http://bit.ly/2mbZoLy>, CountryLiving <http://bit.ly/2phYblU>, The Ryersonian 4/10/2017
  - Radio: KABC Los Angeles McIntyre In the Morning 3/22/2017
  - TV: 9News Denver <http://on9news.tv/2pJVVJx>, Fox31 Denver 4/26/2017
- 2016- Author, Crossflower: Genomic history of a plant invasion (<https://www.zoology.ubc.ca/~turner/Crossflower/>), describing herbarium genomics work with *Chorisporea tenella*
- 2015 Science card game designer, Phylo: The Trading Card Game (<http://phylogame.org/decks/wwest-women-in-science-and-engineering-deck/>), ‘Women in Science and Engineering’ deck.
- 2014-2015 Contributor, UBC Biodiversity Research Centre Twitter account (@UBCBiodiversity).
- 2014 ScienceOnline Together 2014 conference, including game design workshop
- 2013- Co-designer, Plague of Species (<https://twitter.com/PlagueOfSpecies>)
  - app-style educational game (invasive species, evolution).
  - Press: <http://bit.ly/2aW7aUw>
- 2011- Author, [AlienPlantation.com](http://AlienPlantation.com), science blog (invasion biology, ethnobotany).
  - Student guest posts include winner of ScienceSeeker award 2013.
  - ~300 views/month from 80+ countries.
- 2011- Outreach via Twitter (@KTInvasion, >1600 followers)

**Service***Professional*

- 2018-2017 Guest associate editor, *Molecular Ecology Resources*
- 2017 Guest associate editor, *Journal of Heredity*
- 2017 External grant proposal reviewer, National Science Center, Poland
- 2016 External examiner, Master's Thesis, School of Environmental and Rural Science, University of New England, Armidale, Australia.
- 2016 Ad-hoc grant proposal reviewer, NSF Division of Environmental Biology
- 2011-2005 Journal reviewer: *New Phytologist*, *Molecular Ecology*, *Proceedings of the Royal Society B: Biological Sciences*, *Journal of Ecology*, *Ecography*, *American Naturalist*, *Evolution*, *Scientific Reports*, *Annals of Botany*, *Oecologia*, *American Journal of Botany*, *Ecology and Evolution*, *Journal of Heredity*, *AoB PLANTS*, *Plant Biology*, *International Journal of Plant Sciences*, *New Zealand Journal of Ecology*, *Botany*, *Journal of Systematics and Evolution*, *Biodiversity Data Journal*, *Axios Review*
- 2005 AmeriCorps National Civilian Community Corps member, Student Conservation Association, at Cibola National Wildlife Refuge, US Fish and Wildlife Service

*Institutional*

- 2019 PSU Microbiome Center meeting facilitator
- 2016-2017 Co-organizer, CSU Biology Job Search Group
  - Postdocs and ABD grad students help each other in the job application process.
- 2012-2014 Member, Biodiversity Landscaping Committee, Beaty Biodiversity Museum and Research Centre, UBC.
  - With Administration and Facilities, improved campus biodiversity.
- 2011-2014 Organizer, Biodiversity Social, Biodiversity Research Centre, UBC.
  - Weekly networking event, 5 Departments/3 Colleges regularly participating
- 2009–2015 Steering Committee member, “Biodiversity Research: Integrative Training and Education” Program, Natural Sciences and Engineering Research Council of Canada: Collaborative Research and Training Experience grant, Biodiversity Research Centre, UBC.

*Departmental*

- 2010-2012 Treasurer/Executive Member, Botany Graduate Student Association, UBC.
  - Successfully lobbied to raise minimum graduate student stipends.

**Scientific society memberships:** Soc. for Herbarium Curators, Soc. for the Study of Evolution, Soc. for Molecular Biology and Evolution, American Genetics Assoc., Genetics Soc. of America, Ecological Soc. of America, Canadian Botanical Assoc., Northern Rockies Invasive Plant Council