PEER REVIEWED PUBLICATIONS

(* indicates papers co-authored with a student of mine, ** indicates co-authored with a postdoc of mine)

73 *Ward, S. E., M. E. Schulze**, and B. A. Roy**. in press. A long-term perspective on microclimate and spring plant phenology in the Western Cascades. Ecosphere.

72 *Pfeifer-Meister, L., L. G. Gayton, **B. A. Roy**, B. R. Johnson, and S. D. Bridgham. 2018. Greenhouse gas emissions limited by low nitrogen and carbon availability in natural, restored, and agricultural Oregon seasonal wetlands. Peer J.

71 **Roy, B. A**., M. Zorilla, L. Endara, *D. C. Thomas, *R. Vandegrift, J. M. Rubenstein, *T. Policha, and B. Ríos-Touma. 2018. New mining concessions will severely decrease biodiversity and ecosystem services in Ecuador. Tropical Conservation Science 11:1-20.

70 *Policha, T., A. Davis, M. Barnadas, B. M. Dentiger, R. A. Raguso, and **B. A. Roy**. 2016. Disentangling visual and olfactory signals in mushroom-mimicking *Dracula* orchids using realistic three-dimensional printed flowers. New Phytologist **210**:1058-1071; Cover article.

69 *Thomas, D.C, Vandegrift, A., Carroll, G. C. and **Roy, B. A**. 2016. Spatial ecology of the fungal genus *Xylaria* in a tropical cloud forest. Biotropica. epub date: 18 January 2016 DOI: 10.1111/btp.12273; cover article see: http://onlinelibrary.wiley.com/doi/10.1111/btp.2016.48.issue-3/issuetoc

68*Vandegrift, R., **B. A. Roy**, L. Pfeifer-Meister, B. R. Johnson, and S. D. Bridgham. 2015. The herbaceous landlord: integrating the effects of symbiont consortia within a single host. Peerj **3**. Nov3 : 10.7717/peerj.1379

67 *Poulos, L. and **B. A. Roy**. 2015. Fire and false brome: how do prescribed fire and invasive *Brachypodium sylvaticum* affect each other. Invasive Plant Science and Management 8(2):122-130 DOI: http://dx.doi.org/10.1614/IPSM-D-14-00024.1

66 *Blaisdell, G. K., **B. A. Roy**, L. Pfeifer-Meister, S. Bridgham. 2015. An exploration of hypotheses that explain herbivore and pathogen attack in restored plant communities. PLoS ONE 10(2):e0116650. doi:10.1371/journal.pone.0116650

65 *Vandegrift, R., W. Blaser, F. Campos Cerda, A. F. Heneghan, G. C. Carroll, and **B. A. Roy**. 2015. Mixed fitness effects of grass endophytes modulate impact of enemy release and rapid evolution in an invasive grass. **Biological Invasions** 17(4): 1239-1251 DOI 10.1007/s10530-014-0791-1

64 **Roy, B. A**., H. M. Alexander, J. M. Davidson, F. Campbell, J. J. Burdon, R. A. Sniezko, and C. Brasier. 2014. Increasing forest loss worldwide from invasive pests requires new trade regulations. **Frontiers in Ecology and the Environment 12**: 457–465.

63 **Roy, B. A**., K. Hudson, M. Visser, and B. R. Johnson. 2014. Prairie fires may favor native over exotic plants by reducing pathogen loads. **Ecology** 95:1897–1906.

62 **Roy, B. A.** and C. P. H. Mulder. 2014. Local adaptation and phenotypic plasticity in the face of climate change: the case of *Vaccinium vitis-idaea* L. **Ecosphere** 5(3): article 30

61*Blaisdell, G. K. and **B. A. Roy**. 2014. Two tests of enemy release of three commonly co-occurring perennial bunchgrass species native in Europe and introduced in the United States. **Biological Invasions** 16: 838-842.

60*Wilson, H., G. K. Blaisdell, G. C. Carroll, and **B. A. Roy**. 2014. Tall fescue is a potential spillover reservoir host for *Alternaria* species. This manuscript resulted from Hannah's Honor's thesis work in my lab. **Mycologia** 106(1): 22-31

59*Pfeifer-Meister, L., B. R. Johnson, **B. A. Roy**, S. Carreño, J. Stewart, and S. D. Bridgham. 2012. Restoring wetland prairies: tradeoffs among native plant cover, community composition, and ecosystem functioning. **Ecosphere 3**:121 (1-19)**.**

58* Pfeifer-Meister, L., **B. A. Roy**, B. Johnson, J. Krueger, and S. Bridgham. 2012. Dominance of native grasses leads to community convergence irrespective of site preparation techniques in a wetland prairie. **Plant Ecology** 213 (4): 637-647**.**

57* Halbritter, A. H., G. Carroll, S. Güsewell, and **B. A. Roy**. 2012. Testing assumptions of the enemy release hypothesis: Herbivore and pathogen damage of *Brachypodium sylvaticum.* ***Mycologia*** *104(1): 34-44.*

56 * Policha, T. J., and **B. A. Roy**. 2012. Fungi, plants and pollinators: Sex, disease and deception. *in* Biocomplexity of plant-fungal interactions. D. Southworth, editor. Wiley.

55* **Roy, B. A.,** S. Güsewell, T. Coulson, W. Blaser, T. Policha, J. Stewart, and K. Blaisdell. 2011. Population regulation by enemies of the grass *Brachypodium sylvaticum*: demography in native and invaded ranges. ***Ecology*** 92(3): 665-675.

54** Dentinger, B. T. M. and **B. A. Roy**. 2010. A mushroom by any other name would smell as sweet: *Dracula* orchids. ***Mcllvainea*** 19 (1): 1-13.

53 Endara, L., D. A. Grimaldi, D. A. and **B. A. Roy**. 2010. Lord of the flies: pollination of *Dracula* orchids. ***Lankesteriana*** 10(1): 1-11. Note: this article was highlighted in the September 2010 issue of Smithsonian on page 24.

52* Holmes S. E., **B. A. Roy**, J. P. Reed, and B. R. Johnson. 2010. Context-dependent pattern and process: The distribution and competitive dynamics of an invasive grass, *Brachypodium sylvaticum.* ***Biological Invasions*** 12(7): 2302-2318

51 **Roy, B. A**. 2010. *Brachypodium sylvaticum*. *IN* CABI, editor. Invasive Species Compendium. ***CABI***, Wallingford, United Kingdom http://www.cabi.org/isc

50 Bidartondo, M. I. and many others, including **B. A. Roy**. 2008. Preserving accuracy in GenBank. Science **319**:1616-1616. (letter)

49 Mulder, C. P. H. , **B. A. Roy** and S. Güsewell. 2008. Herbivores and pathogens on *Alnus viridis* subsp. *fruticosa* in Interior Alaska: Effects of leaf, tree and neighbour characteristics on damage level. ***Botany*** (=Canadian Journal of Botany) 86(4): 408-421

48* L. Pfeifer-Meister, E. M. Cole**, B. A. Roy**, and S. D. Bridgham. 2008. Abiotic constraints on the competitive ability of exotic and native grasses in an Oregon upland prairie. ***Oecologia*** 155(2): 357-366

47.* Hersch, E. and **B. A. Roy.** 2007. Context-dependent pollinator behavior: an explanation for patterns of hybridization among three species of Indian paintbrush. ***Evolution*** 61: 111-124. (Cover article).

46* Pfunder, M. and **B.A. Roy.** 2006**.** Effects of frequency and density on the fecundity of insect pollinated flowers and fungal pseudoflowers. ***Botanica Helvetica*** 116 (2): 149-158

45** Siemens, D. H. and **B. A. Roy**. 2005. Tests for parasite-mediated frequency-dependent selection in natural populations of an asexual plant species. ***Evolutionary Ecology*** 19 321-338.

44 **Roy, B. A.** 2004. Rounding up the costs and benefits of herbicides. ***Proceedings of the National Academy of Sciences***, USA 101 (39): 13974-13975

43 **Roy, B.A.,** S. Güsewell, and J. Harte. 2004. Response of plant pathogens and herbivores to a warming experiment. ***Ecology*** 85(9): 2570-2581.

42 Stanton, M. L., D. A. Thiede, and **B. A. Roy**. 2004. Consequences of intraspecific competition and environmental variation for selection in the mustard *Sinapis arvensis*: Contrasting ecological and evolutionary perspectives. ***American Naturalist*** 164 (6): 736-752

41* Schürch, S., and **B. A. Roy**. 2004. Comparing single- versus mixed-genotype infection of *Mycosphaerella graminicola* on wheat: effects on pathogen virulence and host tolerance. ***Evolutionary Ecology*** 18: 1-14.

40 Joshi, J. S.J. Otway, J. Koricheva, A.B. Pfisterer, J. Alphei, **B.A. Roy**, M. Scherer-Lorenzen, B. Schmid, E. Spehn, and A. Hector. 2004. Bottom-up effects and feed-backs in simple and diverse experimental grassland communities. Pages 115-134 *In "Insects and Ecosystem function"* W. W Weisser and E. Siemann, editors, Springer Verlag

39**Siemens, D. H., H. Lischke, N. Maggiulli, S. Schürch, and **B.A. Roy**. 2003. Cost of resistance and tolerance under competition: the defense-stress benefit hypothesis. ***Evolutionary Ecology*** 17: 247-263

38**Steinger, T., **B.A. Roy**, and M. L. Stanton. 2003. Evolution in stressful environments II: adaptive value and costs of plasticity in response to low light in *Sinapis arvensis*. ***Journal of Evolutionary Biology*** 16:313-323

37* Pflugshaupt, K., J. Kollmann, M. Fischer & **B.A. Roy**. 2002. Pollen quantity and quality affect fruit abortion in small populations of a rare fleshy-fruited shrub. ***Basic and Applied Ecology*** 3(4): 319-327

36 *Naef, A., **B.A. Roy**, R. Kaiser and R. Honegger. 2002. Insect-mediated reproduction of systemic infections by *Puccinia arrhenatheri* on *Berberis vulgaris* (Berberidaceae). ***New Phytologist*** 154(3): 717-730

35 Kirchner, J. W. and **B.A. Roy**. 2002. Evolutionary implications of host-pathogen specificity: fitness consequences of pathogen virulence traits. ***Evolutionary Ecology Research*** 14(1): 27-48

34 *Pfunder, M., S. Schürch, and **B. A. Roy**. 2001. Sequence variation and distribution of pseudoflower-forming rust fungi (*Uromyces pisi* s.l.) on *Euphorbia cyparissias*. Mycological Research **105**: 57-66.

33 **Roy, B.A**., J. W. Kirchner, C. Christian and L. Rose. 2001. High disease incidence and apparent tolerance in a North American Great Basin plant community. ***Evolutionary Ecology*** 14(4-6): 421-438

32 Kirchner, J. W. and **B.A. Roy**. 2001. Evolutionary implications of host-pathogen specificity: The fitness consequences of host life history traits. ***Evolutionary Ecology*** 14: 665-692

31 **Roy, B.A.** 2001. Patterns of association between crucifers and their flower mimic pathogens: Host jumps are more common than coevolution or cospeciation. ***Evolution*** 55(1): 41-53

30 *Utelli, A. B. and **B.A. Roy**. 2001. Causes and consequences of floral damage in *Aconitum lycoctonum* at high and low elevations in Switzerland ***Oecologia*** 127:266-273

29 **Roy, B.A.** and J. W. Kirchner. 2000. Evolutionary dynamics of pathogen resistance and tolerance. ***Evolution*** 54(1): 51-63

28 *Pfunder, M. and **B.A. Roy**. 2000. Pollinator-mediated interactions between a pathogenic fungus, *Uromyces pisi* (Pucciniaceae) and its host plant, *Euphorbia cyparissias* (Euphorbiaceae). ***American Journal of Botany*** 88 (1): 48-55

27 **Kollmann, J., T. Steinger and **B.A. Roy**. 2000. Clonal diversity and evidence of sexuality in European *Rubus* species based on AFLP and allozyme analysis. ***American Journal of Botany*** 87(11): 1592-1598.

26 *Pfunder, M. and **B.A. Roy**. 2000. Sequence variation and spatial distribution of pseudoflower-forming rust fungi (*Uromyces pisi* s.l.) on *Euphorbia cyparissias*. ***Mycological Research*** 105 (1): 57-66

25 *Schürch, S., M. Pfunder and **B.A. Roy**. 2000. Effects of ants on the reproductive success of *Euphorbia cyparissias* and associated pathogenic rust fungi. ***Oikos*** 88: 6-12

24 Stanton, M. L., **B.A. Roy** and D. A. Thiede. 2000. Evolution in stressful environments. I. Phenotypic variability, phenotypic selection, and response to selection in five distinct environmental stresses. ***Evolution*** 54(1): 93-111

23*Utelli, A.-B. and **B.A. Roy**. 2000. Pollinator abundance and behavior on *Aconitum lycoctonum* (Ranunculaceae): an analysis of the quantity and quality components of pollination. ***Oikos*** 89(3):461-470.

22 *Utelli, A. B., **B.A. Roy** and M. Baltisberger. 2000. Molecular and morphological analyses of European *Acontium* species (Ranunculaceae). ***Plant Systematics and Evolution*** 224: 195-212.

21 **Roy, B.A.** and A. Widmer. 1999. Floral mimicry: a fascinating yet poorly understood phenomenon. ***Trends in Plant Science*** 4:325-330.

20 **Roy, B.A.** and M. L. Stanton. 1999. Asymmetry of wild mustard, *Sinapis arvensis* (Brassicaceae), in response to severe physiological stresses. ***Journal of Evolutionary Biology*** 12: 440-449.

19 **Roy, B.A.**, M.L. Stanton and S. M. Eppley. 1999. Effects of environmental stress on leaf hair density and consequences for selection. ***Journal of Evolutionary Biology*** 12: 1089-1103

18 Kirchner,J.W. and **B.A. Roy**. 1999. The evolutionary advantages of dying young: epidemiological implications of longevity in metapopulations. ***American Naturalist*** 154: 140-159.

17 *Utelli, A. B., B.A. Roy and M. Baltisberger. 1999. History can be more important than "pollination syndrome" in determining the genetic structure of plant populations: the case of *Aconitum lycoctonum*. ***Heredity*** 82: 574-584.

16 **Roy, B.A**. 1998. Differentiating the effects of origin and frequency in reciprocal transplant experiments used to test negative frequency-dependent selection hypotheses ***Oecologia*** 115 : 73-83.

15 **Roy, B.A.,** D. Vogler, T. Bruns and T. Szaro. 1998. Cryptic species in the *Puccinia monoica* complex. ***Mycologia*** 90 (5) 847-854

14 Raguso, R. A. and **B.A. Roy**. 1998. "Floral" scent production by *Puccinia* rust fungi that mimic flowers. ***Molecular Ecology*** 7(9) 1127-1136

13 Widmer, A., M. Soliva, A. Erhardt and **B.A. Roy**. 1998. New Research: Testing speciation mechanisms in orchids with molecular and ecological methods. ***Bulletin of the Geobotanical Institute*** *ETH* 64 : 103-107.

12 **Roy, B.A.** and R. Raguso. 1997. Olfactory versus visual cues in a floral mimicry system. ***Oecologia*** 109(3) 414-426.

11 *Utelli, A.-B., **B.A. Roy** and M. Baltisberger. 1997. New Research: Evolution of mating systems in plants: the causes and consequences of inbreeding in *Aconitum lycoctonum* s.l. ***Bulletin of the Geobotanical Institute*** 63: 87-93.

10 **Roy, B.A.** 1996. A plant pathogen influences pollinator behavior and may influence reproduction of non-hosts. ***Ecology*** 77(8): 2445-2457.

9 **Roy, B.A.** 1996. Floral mimicry, coevolution of hosts and pathogens, and stress tolerance versus resistance to pathogens. ***Bulletin of the Geobotanical Institute*** ETH 62: 75-78.

8 **Roy, B.A.** 1995. The breeding systems of six species of *Arabis* (Brassicaceae). ***American Journal of Botany*** 82: 869-877.

7 **Roy, B.A.** 1994. The use and abuse of pollinators by fungi. ***Trends in Ecology and Evolution*** 9(9): 335-339.

6 **Roy, B.A.** 1994. The effects of pathogen-induced pseudoflowers and buttercups on each other's insect visitation. ***Ecology*** 75(2): 352-358.

5 **Roy, B.A.** 1993. Floral mimicry by a plant pathogen. ***Nature*** 362 (6415): 56-58.

4 **Roy, B.A.** 1993. Patterns of rust infection as a function of host genetic diversity and host density in natural populations of the apomictic crucifer, *Arabis holboellii*. ***Evolution*** 47 (1): 111-124.

3 **Roy, B.A.,** and P. Bierzychudek. 1993. The potential for rust infection to cause natural selection in apomictic *Arabis holboellii* (Brassicaceae). ***Oecologia*** 95: 533-541

2 **Roy, B.A.,** and L. Rieseberg. 1989. Evidence for apomixis in *Arabis*. ***Journal of Heredity*** 80: 506-508.

1 **Roy, B.A.,** and L. C. Matten. 1989. Lycopods from the New Albany Shale. ***Palaeontographica B*** 212: 1-45.

Articles and Reports that are not peer-reviewed

4 **Roy, B. A**., Mecham, J., & Thomas, D. C. (submitted 31Mar18). New mining concessions in Ecuador threaten biodiversity and displacement of communities. *Mountain Ecosystem News*.

3 Vandegrift, R., D. C. Thomas, **B. A. Roy**, and M. Levy. 2017. The extent of recent mining concessions in Ecuador. Rainforest Information Centre, Nimbin, New South Wales, Australia: https://ecuadorendangered.com/research/reports/RIC-Mapping-Report-v1.1-20180117-eng.pdf

2 **Roy, B.A.** 1989. Colorado Flora: Western Slope, by W. A. Weber. ***Quarterly Review of Biology*** 64: 348-349. (Book review)

1 **Roy, B.A.** 1985. Fossil plants associated with the roof shales of the Murphysboro Coal Member. pp. 1-7 *In* L. C. Matten (ed.), Third Mid-Continent Paleobotanical Colloquium, Southern Illinois University, Carbondale. (Field Guide)