## H. D. (Toby) Bradshaw, Jr.

Professor and Chair
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### **Employment:**

Chair, Department of Biology, Univ. of Washington, 2011-Professor, Department of Biology, Univ. of Washington, 2003-Research Associate Professor, College of Forest Resources, Univ. of Washington, 1995-2003 Research Assistant Professor, College of Forest Resources, Univ. of Washington, 1994-5 Research Assistant Professor, Dept. of Biochemistry, Univ. of Washington, 1989-94 Helen Hay Whitney Postdoctoral Fellow (Milton P. Gordon, research director), 1984-87 National Science Foundation Graduate Fellow, 1980-83 American Heart Association/Louisiana Graduate Fellow, 1980-81 Graduate assistant, LSUMC (William C. Claycomb, research director), 1979-80

#### **Education:**

University of Washington, Seattle, Postdoctoral Fellow, 1984-89
Louisiana State University Medical Center, New Orleans, Graduate Fellow, 1979-84
Ph.D. Biochemistry 1984 "Cloning and characterization of the human thymidine kinase gene."

Fast Carolina University, Greenville, 1978-79, B.S. Biology 1979

East Carolina University, Greenville, 1978-79, B.S. Biology 1979 North Carolina State University, Raleigh, 1975-77

#### **Research Interests:**

Genetics of speciation and adaptation: linkage/QTL mapping of morphological and physiological traits resulting in reproductive isolation of *Mimulus lewisii* and *Mimulus cardinalis*; positional cloning of adaptive QTLs; synthesis of new species.

This and previous work has been supported by the U.S. Department of Agriculture National Research Initiative Competitive Grants Program, the U.S. Department of Energy Biomass Feedstock Development Program, the Washington Technology Center Plant Biotechnology Center, the Consortium for Plant Biotechnology Research, the Poplar Molecular Genetics Cooperative, the Royalty Research Fund of the University of Washington, the National Science Foundation, the NSF FIBR Program, and the National Institutes of Health.

#### **Recent Professional and Scientific Activities:**

Chair, Department of Biology (2011-)
Assoc. Chair/Undergraduate Program for the Department of Biology (2009-)
Search committee member for Dean of the College of the Environment (2010)
Elected Fellow of the American Association for the Avancement of Science (2007)
Washington Research Foundation Professor of Biological Sciences (2005-2008)
Assoc. Chair/Graduate Program Coordinator for the Department of Biology (2003-9)
Search committee member for Dean of College of Arts & Sciences (2007)
Search committee member for Dean of UW Graduate School and Vice Provost (2005)
Co-Chair, NIH Genetic Variation and Evolution Study Section (2008-2009)
NIH Genetics Study Section (2001)

#### **PUBLICATIONS**

- **Owen, Christina & Bradshaw, H.D., Jr.** (2011) Induced mutations affecting pollination in *Mimulus lewisii* (Phrymaceae). *Arthropod-Plant Interactions* 5: 235-244.
- **Angert, A.L., Bradshaw, H.D., Jr., & Schemske, D.W.** (2008) Using experimental evolution to investigate geographic range limits in monkeyflowers. *Evolution* 62: 2660-2675.
- **Reichard, S., Hinckley, T., & Bradshaw, H.D., Jr.** (2007) Terrorists are activists who renounce non-violence. *Nature* 468: 22.
- **Bradshaw, H.D., Jr.** (2005) Mutations in *CAX1* produce phenotypes characteristic of plants tolerant to serpentine soils. *New Phytologist* 167: 81-88.
- **Brady, K.U, Kruckeberg, A.R., & Bradshaw, H.D., Jr.** (2005) Evolutionary ecology of plant adaptation to serpentine soils. *Annual Review of Ecology, Evolution, and Systematics* 36: 243-266.
- **Strauss, S.H. & Bradshaw, H.D., Jr., eds.** (2004) The bioengineered forest: Challenges for science and society. Resources for the Future Press, Washington, D.C. ISBN 1-891853-71-6.
- **Bradshaw, H.D., Jr. & Schemske, D.W.** (2003) Allele substitution at a flower colour locus produces a pollinator shift in monkeyflowers. *Nature* 426: 176-178.
- **Ramsey, J. R., Bradshaw, H. D., Jr., & Schemske, D. W.** (2003) Components of reproductive isolation in the monkeyflowers *Mimulus lewisii and M. cardinalis* (Phrymaceae). *Evolution* 57(7): 1520-1534.
- **Stirling, B., Yang, Z. K., Gunter, L E., Tuskan, G. A., & Bradshaw, H.D., Jr.** (2003) Comparative sequence analysis between orthologous regions of the *Arabidopsis* and *Populus* (poplar) genomes reveals substantial synteny and microcollinearity. *Canadian Journal of Forest Research* 33(11): 2245-2251.
- **Ferris, R., Long, L., Bunn, S.M., Robinson, K.M., Bradshaw, H.D., & Taylor, G.** (2002) Leaf stomatal and epidermal cell development: identification of putative quantitative trait loci in relation to elevated carbon dioxide concentration in poplar. *Tree Physiology* 22: 633-640.
- **Bradshaw, H.D., Jr. & Strauss, S.H.** (2001) Plotting a course for GM forestry. *Nature Biotechnology* 19(12): 1103-1104.
- **Stirling, B., Newcombe, G., Vrebalov, J., Bosdet, I., & Bradshaw, H.D., Jr.** (2001) Suppressed recombination around the *MXC3* locus, a major gene for resistance to poplar leaf rust. *Theoretical and Applied Genetics* 103(8): 1129-1137.
- **Newcombe, G., Stirling, B., & Bradshaw, H.D., Jr.** (2001) Abundant pathogenic variation in the new hybrid rust population of *Melampsora* x *columbiana* on hybrid poplar. *Phytopathology* 91: 981-985.
- **Bradshaw, H.D., Jr. & Schemske, D.W.** (2001) The birds and the bees of plant evolution. *Northwest Science and Technology* Spring 2001: 44-49.

- **Bradshaw, H.D., Jr., Ceulemans, R., Davis, J., & Stettler, R.F.** (2000) Emerging model systems: Poplar (*Populus*) as a model forest tree. *Journal of Plant Growth Regulators* 19(3): 306-313.
- **Bradshaw, H.D., Jr. & Strauss, S.H.** (2000) Breeding strategies for the 21<sup>st</sup> Century: Domestication of poplar. Proceedings of the International Poplar Council Meeting, Portland, OR, September.
- Frewen, B.E., Chen, T.H.H., Howe, G., Davis, J., Rohde, A., Boerjan, W., & Bradshaw, H.D., Jr. (2000) QTL and candidate gene mapping of bud set and bud flush in *Populus*. *Genetics* 154: 837-845.
- **Newcombe, G, Stirling, B., McDonald, S., & Bradshaw, H.D., Jr.** (2000) *Melampsora* x *columbiana*, a natural hybrid of *M. medusae* and *M. occidentalis. Mycological Research* 104(3): 261-274.
- **Schemske, D.W. & Bradshaw, H.D., Jr.** (1999) Pollinator preference and the evolution of floral traits in monkeyflowers (*Mimulus*). *Proceedings of the National Academy of Sciences USA* 96(21): 11910-11915.
- Howe, G.T., Davis, J., Jeknic, Z., Chen, T.H.H., Frewen, B., Bradshaw, H.D., Jr., & Saruul, P. (1999) Physiological and genetic approaches to studying endodormancy-related traits in *Populus. HortScience* 34(7): 1174-1184.
- Bradshaw, H.D., Jr., Otto, K.G., Frewen, B.E., McKay, J.K. & Schemske, D.W. (1998)

  Quantitative trait loci affecting differences in floral morphology between two species of monkeyflower (*Mimulus*). *Genetics* 149: 367-382.
- **Bradshaw, H.D., Jr.** (1998) Case history in genetics of long-lived plants: Molecular approaches to domestication of a fast-growing forest tree: *Populus. In*: Molecular dissection of complex traits. Paterson, A. (ed), CRC Press, Boca Raton, Florida, pp. 219-228.
- **Wu, R., Bradshaw, H.D., Jr., & Stettler, R.F.** (1998) Developmental quantitative genetics of growth in *Populus. Theoretical and Applied Genetics* 97: 1110-1119.
- **Wilbert, S.M., Schemske, D.W., & Bradshaw, H.D., Jr.** (1997) Floral anthocyanins from two monkeyflower species with different pollinators. *Biochemical Systematics and Ecology* 25(5): 437-443.
- **Wu, R., Bradshaw, H.D., Jr., & Stettler, R.F.** (1997) Molecular genetics of growth and development in *Populus*. V. Mapping quantitative trait loci affecting leaf variation. *American Journal of Botany* 84(2): 143-153.
- **Newcombe, G. & Bradshaw, H.D., Jr.** (1996) Quantitative trait loci conferring resistance in hybrid poplar to leaf spot caused by *Septoria populicola*. *Canadian Journal of Forest Research* 26(11): 1943-1950.
- **Bradshaw, H.D., Jr.** (1996) Molecular genetics of *Populus. In*: Biology of *Populus* and its implications for management and conservation. Stettler, R.F., Bradshaw, H.D., Jr., Heilman, P.E., & Hinckley, T.M. (eds), NRC Press, Ottawa, pp. 183-199.

- **Villar, M., Lefevre, F., Bradshaw, H.D., & Teissier du Cros, E.** (1996) Molecular genetics of rust resistance in poplars (*Melampsora larici-populina* Kleb./*Populus* sp.) by bulked segregant analysis in a 2 x 2 factorial mating design. *Genetics* 143: 531-536.
- **Newcombe, G., Bradshaw, H.D., Jr., Chastagner, G.A., & Stettler, R.F.** (1996) A major gene for resistance to *Melampsora medusae* f.sp. *deltoidae* in a hybrid poplar pedigree. *Phytopathology* 86(1): 87-94.
- **Bradshaw, H.D., Jr., Wilbert, S.M., Otto, K.G., & Schemske, D.W.** (1995) Genetic mapping of floral traits associated with reproductive isolation in monkeyflowers (*Mimulus*). *Nature* 376: 762-765.
- **Bradshaw, H.D., Jr. & Stettler, R.F.** (1995) Molecular genetics of growth and development in *Populus*. IV. Mapping QTLs with large effects on growth, form, and phenology traits in a forest tree. *Genetics* 139: 963-973.
- **Bradshaw, H.D., Jr. & Grattapaglia, D.** (1995) QTL mapping in interspecific hybrids of forest trees. *Forest Genetics* 1(4): 191-196.
- **Han, K.-H., Bradshaw, H.D., Jr., & Gordon, M.P.** (1995) Adventitious root and shoot regeneration *in vitro* is under major gene control in an F<sub>2</sub> family of hybrid poplar (*Populus trichocarpa* x *P. deltoides*). *Forest Genetics* 1(3): 139-146.
- Bradshaw, H.D., Jr., Villar, M., Watson, B.D., Otto, K.G., Stewart, S., & Stettler, R.F. (1994) Molecular genetics of growth and development in *Populus*. III. A genetic linkage map of a hybrid poplar composed of RFLP, STS, and RAPD markers. *Theoretical and Applied Genetics* 89(5): 167-178.
- **Grattapaglia, D. & Bradshaw, H.D., Jr.** (1994) Nuclear DNA content of commercially important *Eucalyptus* species and hybrids. *Canadian Journal of Forest Research* 24: 1074-1078.
- **Bradshaw, H.D., Jr. & Stettler, R.F.** (1994) Molecular genetics of growth and development in *Populus*. II. Segregation distortion due to genetic load. *Theoretical and Applied Genetics* 89: 551-558.
- **Stettler, R.F. & Bradshaw, H.D., Jr.** (1994) The choice of genetic material for mechanistic studies of adaptation in forest trees. *Tree Physiology* 14: 781-796.
- **Clarke, H.R.G., Davis, J.M., Wilbert, S.M., Bradshaw, H.D., Jr., & Gordon, M.P.** (1994) Wound-induced and developmental activation of a poplar tree chitinase gene promoter in transgenic tobacco. *Plant Molecular Biology* 25: 799-815.
- **Bradshaw, H.D., Jr. & Stettler, R.F.** (1993) Molecular genetics of growth and development in *Populus*. I. Triploidy in hybrid poplars. *Theoretical and Applied Genetics* 86:301-307.
- **Bradshaw, H.D., Jr. & Foster, G.S.** (1992) Marker-aided selection and propagation systems in trees: Advantages of cloning for studying quantitative inheritance. *Canadian Journal of Forest Research* 22:1044-1049.
- **Stettler, R.F., Bradshaw, H.D., Jr., & Zsuffa, L.** (1992) The role of genetic improvement in short rotation forestry. *In*: Ecophysiology of short rotation forest crops. Mitchell, C.B., Ford-Robertson, J.B., Hinckley, T., & Sennerby-Forsse, L. (eds), Elsevier Applied Science, New York, pp. 285-308.

- **Davis, J.M., Clarke, H.R.G., Bradshaw, H.D., Jr., & Gordon, M.P.** (1991) *Populus* chitinase genes: structure, organization, and similarity of translated sequences to herbaceous plant chitinases. *Plant Molecular Biology* 17:631-639.
- **Bradshaw, H.D., Jr., Parsons, T.J., & Gordon, M.P.** (1991) Wound-responsive gene expression in poplars. *Forest Ecology and Management* 43:211-224.
- Bradshaw, H.D., Jr. (1990) Killer toxins. Nature 345:299.
- Bradshaw, H.D., Jr., Traxler, B.A., Minkley, E.G., Nester, E.W., & Gordon, M.P. (1990) Nucleotide sequence of the *tral* (helicase I) gene from the sex factor F. *Journal of Bacteriology* 172:4127-4131.
- **Morris, D.W., Barry, P.A., Bradshaw, H.D., Jr., & Cardiff, R.D.** (1990) Insertion mutation of the *int-*1 and *int-*2 loci by mouse mammary tumor virus in premalignant and malignant neoplasms from the GR mouse strain. *Journal of Virology* 64:1794-1802.
- Bradshaw, H.D., Jr., Hollick, J.B., Parsons, T.J., Clarke, H.R.G., & Gordon, M.P. (1989) Systemically wound-responsive genes in poplar trees encode proteins similar to sweet potato sporamins and legume Kunitz trypsin inhibitors. *Plant Molecular Biology* 14:51-59.
- **Parsons, T.J., Bradshaw, H.D., Jr., & Gordon, M.P.** (1989) Systemic accumulation of specific mRNAs in response to wounding in poplar trees. *Proc. Natl. Acad. Sci. USA* 86:7895-7899.
- Morris, D.W., Bradshaw, H.D., Jr., Billy, H.T., Munn, R.J., & Cardiff, R.D. (1989) Isolation of a pathogenic clone of mouse mammary tumor virus. *Journal of Virology* 63:148-158.
- **Bradshaw, H.D., Jr. & Coulson, T.D.** (1988) Male-biased sex ratio in captive-bred Harris' Hawks. *Journal of Raptor Research* 22:116-117.
- Dandekar, S., Rossitto, P., Pickett, S., Mockli, G., Bradshaw, H., Cardiff, R., & Gardner, M. (1987) Molecular characterization of the *Akvr-1* restriction gene: a defective endogenous retrovirus-borne gene identical to *Fv-4r*. *Journal of Virology* 61:308-314.
- Bradshaw, H.D., Jr., Parson, W.W., Sheffer, M., Lioubin, P.J., Mulvihill, E.R., & Gordon, M.P. (1987) Design, construction, and use of an electroporator for plant protoplasts and animal cells. *Analytical Biochemistry* 166:342-348.
- **Slagel, V., Flemington, E., Traina-Dorge, V., Bradshaw, H.D., Jr., & Deininger, P.L.** (1987) Clustering and subfamily relationships of the *Alu* family in the human genome. *Molecular Biology & Evolution* 4:19-29.
- Flemington, E., Bradshaw, H.D., Jr., Traina-Dorge, V., Slagel, V., & Deininger, P.L. (1987) Sequence, structure, and promoter characterization of the human thymidine kinase gene. *Gene* 52:267-277.
- **Fanning, T.G., Morris, D.W., Cardiff, R.D., & Bradshaw, H.D., Jr.** (1985) Characterization of an endogenous retrovirus-repetitive DNA chimera in the mouse genome. *Journal of Virology* 53:998-1000.
- **Bradshaw, H.D., Jr. & Deininger, P.L.** (1984) Human thymidine kinase gene: Molecular cloning and nucleotide sequence of a cDNA expressible in mammalian cells. *Molecular & Cellular Biology* 4:2316-2320.
- **Bradshaw, H.D., Jr.** (1983) Molecular cloning and cell cycle-specific regulation of a functional human thymidine kinase gene. *Proc. Natl. Acad. Sci. USA* 80:5588-5591.

- **Claycomb, W.C. & Bradshaw, H.D., Jr.** (1983) Acquisition of multiple nuclei and the activity of DNA polymerase 2 and reinitiation of DNA replication in terminally differentiated adult cardiac muscle cells in culture. *Developmental Biology* 99:331-337.
- **Vedeckis, W.V. & Bradshaw, H.D., Jr.** (1983) DNA fragmentation in S49 lymphoma cells killed with glucocorticoids and other agents. *Molecular & Cellular Endocrinology* 30:215-227.
- **Bradshaw, H.D., Jr. & Vedeckis, W.V.** (1983) Glucocorticoid effects on thymidine incorporation into the DNA of S49 lymphoma cells. *Journal of Steroid Biochemistry* 18:691-698.

# INVITED SEMINARS AND ABSTRACTS (past decade)

- **Bradshaw, H.D., Jr.** (2011) The genetics of adaptation and speciation in monkeyflowers (*Mimulus*). University of California Davis, 24 January.
- **Bradshaw, H.D., Jr.** (2011) Genetically engineered plants: The science behind the controversy. King County Medical Society, 11 January.
- **Bradshaw, H.D., Jr.** (2007) The genetics of adaptation and speciation in monkeyflowers (*Mimulus*). University of Toronto, Toronto ON, 9 February.
- **Bradshaw, H.D., Jr.** (2007) Genetically engineered plants: The science behind the controversy. Science and Technology Roundtable, Spokane Athletic Club, Spokane WA, 2 February.
- **Bradshaw, H.D., Jr.** (2007) The genetics of adaptation and speciation in monkeyflowers (*Mimulus*). University of Wisconsin, Madison WI, 25 January.
- **Bradshaw, H.D., Jr.** (2007) The genetics of adaptation and speciation in monkeyflowers (*Mimulus*). University of British Columbia, Vancouver BC, 16 January.
- **Bradshaw, H.D., Jr.** (2006) The genetics of adaptation and speciation in monkeyflowers (*Mimulus*). Purdue University, West Lafayette IN, 29 November.
- **Bradshaw, H.D., Jr.** (2006) The genetics of adaptation and speciation in *Mimulus* and its hybrids. Gordon Conference, Ventura CA, 5-10 February.
- **Bradshaw, H.D., Jr.** (2006) Genetically engineered plants: The science behind the controversy. Science and Technology Roundtable, Rainier Club, Seattle WA, 13 January.
- **Bradshaw, H.D., Jr.** (2005) Genetics of adaptation in natural plant populations. Ecological Genomics Symposium, Lenexa KS, 4-6 November.
- **Bradshaw, H.D., Jr.** (2005) Genetically engineered plants: The science behind the controversy. UW Science Forum, University of Washington, Seattle WA, 14 April.
- **Bradshaw, H.D., Jr.** (2005) Genetics of adaptation in natural plant populations. Oregon State University, Corvallis, OR, 19 May (invited by graduate students).
- **Bradshaw, H.D., Jr.** (2005) Genetics of adaptation in natural plant populations. University of California, Davis CA, 14 March.
- **Bradshaw, H.D., Jr.** (2005) Genetics of adaptation in natural plant populations. University of Victoria, Victoria BC, 28 January.
- **Bradshaw, H.D., Jr.** (2004) Genetics of adaptation in natural plant populations. Harvard University, Cambridge MA, 30 April.
- **Bradshaw, H.D., Jr.** (2004) Genetics of adaptation in natural plant populations. Keynote speaker at Annual Plant Center Symposium, University of Georgia, Athens GA, 10 March.

- **Bradshaw, H.D., Jr.** (2004) Genetics of plant adaptation to serpentine soils. University of Nebraska, Lincoln NB, 6 Feb.
- **Bradshaw, H.D., Jr.** (2004) The origin of plant species. University of Nebraska, Lincoln NB, 5 Feb.
- **Bradshaw, H.D., Jr.** (2003) Genetics of adaptation in natural plant populations. University of Alaska, Fairbanks AK, 14-17 March.
- **Bradshaw, H.D., Jr. & Schemske, D.W.** (2002) Genetics of adaptation in natural plant populations. Molecular genetics and ecology of plant adaptation, University of British Columbia Botanical Garden, Vancouver B.C., 11-13 December.
- **Bradshaw, H.D.** (2002) Plant genetic engineering: prospects and problems. CH2M Hill, Bellevue, WA, 9 December.
- **Bradshaw, H.D., Jr. & Gordon, M.P.** (2002) Genetically engineered organisms in Europe and the U.S. World Affairs Council Meeting, Seattle WA, 27 June.
- **Bradshaw, H.D., Jr.** (2002) Comparative genomics of adaptive evolution. National Academy of Sciences Committee on the National Plant Genome Inititative, Washington, D.C., 6 June.
- **Bradshaw, H.D., Jr.** (2002) Terrorism in the debate over tree genetic improvement. Washington Native Plant Society, Seattle WA, 7 February.
- **Bradshaw, H.D., Jr.** (2002) The poplar genome project. Department of Energy contractor's meeting, Oakland CA, 29 January.
- **Bradshaw, H.D., Jr.** (2002) Terrorism in the debate over tree genetic improvement. Emerald City Rotary Club, Seattle WA, 8 January.

#### **Current Grants**

Genetics of prezygotic reproductive isolation in natural populations of monkeyflowers (*Mimulus*). NIH General Medical Sciences. \$1.2M. 2010-2014.

# **GRADUATE STUDENTS MENTORED**

Student name	Academic unit	Degree	Chair/	Present status
		-1	member	
Kelsey Byers	Biology	Ph.D. exp 2013	Co-chair	Student
Campos, Octavio	Biology	Ph.D. exp 2014	Co-chair	Student
Haak, David	Biology	Ph.D. 2010	Co-chair	Postdoc,
2 2				Indiana Univ.
Owen, Christina	Biology	Ph.D. 2009	Chair	Research
				Scientist, Gates
** 1 17 1	5. 1	DI D 0000		Foundation
Krosby, Meade	Biology	Ph.D. 2009	Co-Chair	Postdoc, UW
Graham, Suzie	Biology	M.S. 2008	Chair	Environmental
				Scientist, US
D 1 17 1 .	D. J	N. G. 200.6	G) 1	Navy
Brady, Kristy	Biology	M.S. 2006	Chair	Law school
Stirling, Brigid	Forest Resources	Ph.D. 2001	Chair	Research
r n l	F . D	M.C. 1000	Cl :	Scientist, UW
Frewen, Barbara	Forest Resources	M.S. 1999	Chair	Research
	D .	DI D 2005	24 1	Scientist, UW
Angert, Amy	Botany	Ph.D. 2005	Member	Prof, U British
Decelele De l	Datas	DI. D. 2002	Manalana	Columbia
Beardsley, Paul	Botany	Ph.D. 2002	Member	D 1
Bonier, Fran	Biology	Ph.D. 2006	Member	Research
				Scientist,
Chin Anna	Dotany	Ph.D. 1995	Member	Queen's Univ
Chin, Anna	Botany		Member	Student
Clifford, Marie	Biology	Ph.D. (exp 2016)	Member	
Cooper, Jacob	Biology	Ph.D. (exp 2014)	Member	Student
Davison, Jerry	Botany	Ph.D. 2006	Member	Dogografi
Ditt, Renata	Botany	Ph.D. 2004	Member	Research
				Scientist, Targeted
				Growth
Eckert, Andrew	Botany	Ph.D. 2006	Member	Asst Prof, VCU
Emery, Leslie	Genome Sciences	Ph.D. (exp 2014)	GSR	Student
Evans, Dan	Biology	Ph.D. (exp 2014)	Member	Student
Frazier, Melanie	Biology	Ph.D.	Member	Student
Henry, Isabelle	Botany	Ph.D. 2006	Member	Research
Tiemy, isabene	Botany	1 II.D. 2000	Member	Scientist, UC
				Davis
Herold, Suzanne	Forest Resources	M.S. 1996	Member	Duvis
Himes, Chris	Biology	Ph.D.	Member	Postdoc, Univ
				NM
Hollick, Jay	Biochemistry	Ph.D. 1994	Member	Adj Prof, UC Berkeley
Holmes-Davis, Rachel	Botany	Ph.D. 1998	Member	Sangamo

				BioSciences
Josefsson, Caroline	Botany	Ph.D. 2006	Member	
Kay, Kathleen	Botany	Ph.D. 2004	Member	Assoc Prof, UC
				Santa Cruz
Lee, Keum-Young	Forest Resources	Ph.D. (exp 2012)	GSR	Student
Malek, Tiffany	FHCRC	Ph.D. 2009	Member	
Martin, Paul	Biology	Ph.D. 2006	Member	Asst Prof,
				Queen's
				University
McClelland, Erin	Fisheries	Ph.D. 2010	Member	
Miner, Brooks	Biology	Ph.D. (exp 2011)	Member	Postdoc,
				Cornell
Murai, Midori	Forest Resources	M.S. 1998	Member	Researcher,
				Chicago
Nahum, Josh	Biology	Ph.D. (exp 2013)	Member	Student
Ramsey, Justin	Botany	Ph.D. 2003	Member	Assoc Prof, U
				Rochester
Reed, John	Forest Resources	M.S. 1995	Member	
Robinson, Marla	Biology	Ph.D. (exp ??)	Member	
Rychel, Amanda	Biology	Ph.D. 2008	Member	Postdoc, UW
Schneider, Sean	Genome Sciences	Ph.D. (exp 2014)	GSR	Student
Smith, David	Biology	Ph.D. (exp 2013)	Member	Student
Smith, Deborah Ann	Forest Resources	Ph.D. 2006	Member	Postdoc
Soza, Valerie	Biology	Ph.D. 2010	Member	Postdoc, UW
Stiles, Kari	Botany	Ph.D. 2001	Member	Student,
				Landscape
				Arch
Tai, Phil	Biochemistry	Ph.D. 2008	GSR	
Tank, David	Botany	Ph.D. 2006	Member	Assoc Prof, U
				Idaho
Unfried, Thomas	Forest Resources	Ph.D. 2009	GSR	
Vignieri, Sacha	Biology	Ph.D. 2005	Member	Assoc Editor,
				Science
Ward, Kimiora	Botany	M.S. 1999	Member	UC Davis
Welch, Corey	Zoology	Ph.D. 2008	Member	
Whorley, Josh	Zoology	Ph.D. 2006	Member	
Woo, Suyoung	Forest Resources	Ph.D. 1996	Member	
Wu, Rongling	Forest Resources	Ph.D. 1995	Member	Assoc Prof, U
				Florida
Yang, Dou-Shuan	Biology	Ph.D. 2011	Member	Postdoc, U NV
_				Reno
Yuan, Yaowu	Biology	Ph.D. 2009	Member	Postdoc, UW
Zheng, Xiaoguang	Zoology	Ph.D. 2004	Member	

# **Teaching**

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RININGV	ДXЧ	Senior	ceminar	on Plant	Canatic	Engineering
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Biology 481/482/562 Experimental Evolutionary Ecology (2006-10)

Biology 302 Methods in Molecular Biology (2009-11)

Biology 120 Controversies in Biology (2006)

Biology 550 Experimental Evolution (2005)

Biology 180 Introductory Biology (2004-10)

Biology 354 Foundations in Evolution and Systematics (2004-7)

Biology 550 Seminar in Evolution and Systematics (2003-)

Biology 551 Topics in Evolutionary Genetics (2003-)

Biology 101 Introductory Biology (1996-2003)

Biology 454 Evolutionary Mechanisms (2001-2003)

Botany 428 Plant Cell and Molecular Biology (2000)

Botany 429 Plant Genetics (1998, 1999, 2001)