

Jeffry B. Mitton

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Educational Experience

B.A., Biology, University of Connecticut, 1969

Ph.D., Ecology and Evolution, State University of New York at Stony Brook, 1973
 (doctoral thesis advisor: Dr. Richard K. Koehn)

N.I.H. Postdoctoral Fellow, Department of Genetics, University of California at Davis
 1973-1974 (post doctoral sponsor: Dr. Robert W. Allard)

Sabbatical: Marine Biological Laboratory, Woods Hole, Massachusetts, 1980-1981.

John Simon Guggenheim Fellow, Marine Biological Laboratory, Woods Hole,
 Massachusetts, June-August, 1983.

Sabbatical: Hopkins Marine Station (Stanford University), Pacific Grove, CA 1989-1990.

Sabbatical: Brown University, September to December, 2000

Long-term collaboration with the University of Palermo, including exchange of graduate
 students and visits to Sicily (1997, 2000, 2002, 2004)

Sabbatical: University of California at Davis, August to December, 2011

Honors, Elected Positions, National Committee Service

Host, annual meeting of the Society for the Study of Evolution, Boulder, 1979.

Host, annual meeting of the Genetics Society of America, Boulder, 1980.

Secretary, Society for the Study of Evolution, 1982-1984.

John Simon Guggenheim Memorial Fellowship, 1983-1984.

Host, annual meeting of the Guild of Rocky Mountain Population Biologists, University
 of Colorado, 1982, 1990, 1991, 1992, 1995, 2003

Executive Vice President, Society for the Study of Evolution, 1985-1988.

Book Review Editor, *Evolution*, 1985-1990.

Associate Editor, *Silvae Genetica*, 1986-1996.

American Association for the Advancement of Science Fellow, 1988.

Host and Organizer, Annual Meeting of the Society for the Study of Evolution and American Society of Naturalists, Asilomar, Pacific Grove, CA, 1988.

Host and Organizer, Annual Meeting of the Western Forest Genetics Association, Boulder, 1992.

Vice President, Society for the Study of Evolution, 1993.

Work on aspen listed in "100 Best of What's New for 1993," December 1993 issue of *Popular Science*.

Boulder Faculty Assembly Service Award, 1993

Panel member, Smithsonian Scholarly Studies Panel, 1994-1996.

Treasurer, American Society of Naturalists, 1996-1999.

Chair, Arts and Sciences Council (Faculty organization representing all faculty in the College of Arts and Sciences; chair elected annually) 1995-1999.

Host, Annual Meeting of the Society for the Study of Evolution, the American Society of Naturalists, and the Society for Systematic Biology, Boulder, 1997.

Special Editor for Perspectives, *Evolution*, 2000-2002

NSF Population Biology Panel, 2001 to 2005.

American Society of Naturalists E. O. Wilson Naturalist Prize Committee, 2001 to 2004 (Chair, 2003)

Department Chair, May 2004 to 2010

First place in the category Fauna in the City of Boulder Open Space and Mountain Photo Contest, August 2007, 2008

Grants and Awards

Research grant-in-aid, Theodore Roosevelt Memorial Fund of the American Museum of Natural History, 1971.

Research initiation faculty fellowship, University of Colorado, 1975.

NSF research grant with Y. B. Linhart, "Genetic analysis of population structure in two Rocky Mountain tree species," 1975-1978.

NSF research grant with Y. B. Linhart, "Genetic analysis of population structure in two Rocky Mountain tree species," 1978-1980.

NSF research grant "Genetic analysis of hormones in the tiger salamander," 1978-1979.

NSF research grant "Analyses of allozyme and morphological variation in the tiger salamander," 1979-1981.

US Forest Service research grant with K. Sturgeon "Evolutionary studies of the mountain pine beetle *Dendroctonus ponderosae* Hopk. and its host trees in the Colorado Rocky Mountains," 1980.

NSF research grant "Morphological and genetic studies of the blue mussel, *Mytilus edulis*," 1981.

John Simon Guggenheim Memorial Fellowship, 1983-1984.

World Wildlife Fund grant with Carl Berg, Jr. "Conch resource management in the Caribbean: a biochemical-genetic analysis of recruitment," 1983-1984.

NSF research grant with Thomas Kocher "Multidisciplinary studies of a hybrid zone," 1983.

Genetic Engineering Corporation grant "Enzyme heterozygosity and yield," 1984.

National Geographic Society grant with Carl Berg, Jr. and Katherine S. Orr "Biochemical-genetic analysis of larval recruitment in the Eastern Caribbean," 1984.

US Olympic Committee grant in aid of research, 1987-1988.

Subcontracts to NSF, USDA grants to Tom Whitham "Analyses of herbivore impact upon a pinyon pine forest," 1988-1989.

NSF research grant "Realized gene flow and the mating system of limber pine," 1987-1990.

Research Contract with Tyson Foods "Enzyme variability in pigs," 1989-1990.

Subcontract to NSF grant to Mark Boyce “Resolution of the lek paradox in sage grouse,” 1987-1990.

Contract from Metro Toronto Zoo, with Anna Goebel “Studies of mitochondrial DNA in the Puerto Rican crested toad,” 1989-1990.

US Olympic Committee grant in aid of research, 1990-1991.

Research contract with Tyson Foods “Mitochondrial DNA variability in pigs,” 1991-1992. \$23,000.

USDA Forest Service grant “Hybridization in southwestern ponderosa pine,” 1992-1993. \$10,000.

Research contract with Tyson Foods “Cleaved amplified polymorphic sequences to identify the gene for porcine stress syndrome,” 1993-1994. \$15,000.

NSF Predoctoral Fellowship for Brian Kreiser. “Phylogeography of the plains killifish” 1993-1998. \$48,000.

USDA Forest Service Grant “Identification of spruces of the southwest,” 1994-1995. \$14,000.

Memorandum of Understanding with the Colorado Division of Wildlife for “Genetic studies of red belly dace and brown trout” 1994-1995. \$6,500

USDA Forest Service Grant “Analyses of the mating system of Washoe pine” 1995. \$5,000.

NSF Dissertation Improvement Grant for Robert G. Latta. “Molecular Studies of Population Structure in Limber Pine.” 1995-1997. \$8,000.

NSF Dissertation Improvement Grant for Scott Kelley “Evolution of resource specialization in the bark beetle genus *Dendroctonus*” 1995-1998. \$10,000.

Memorandum of Understanding with the Colorado Division of Wildlife for “Genetic studies of red belly dace and brown trout” 1995-1996. \$6,500

Memorandum of Understanding with the Colorado Division of Wildlife for “Genetic studies of red belly dace and brown trout” 1996-1997. \$6,500

Extension to a Memorandum of Understanding with the Colorado Division of Wildlife, “Genetic bioassays for stream standards” 1996-1999. \$38,000.

Memorandum of Understanding with the Colorado Division of Wildlife for “Genetic studies of red belly dace and brown trout” 1997-1998. \$6,500

Colorado Division of Wildlife Grant (with Rob Ramey) “Assessment of genetic variation in lynx from preserved tissues” 1998 \$10,000.

Memorandum of Understanding with the Colorado Division of Wildlife for “Genetic studies of red belly dace and brown trout” 1998-1999. \$10,000.

USDA Research Joint Venture Agreement “Toward an understanding of the molecular phylogeography of ponderosa pine” 1998-1999. \$15,000.

NSF Small Grant for Exploratory Research “MtDNA and cpDNA variation in limber pine and ponderosa pine” 1999-2000. \$7,200.

National Park Service Research Grant “A survey of genetic variation in limber pine” 2000, \$4,000.

NSF Grant “The roles of stress and time in insect outbreaks: the effects of one million year successional gradient, and a 100 year regional drought on the pine needle scale” 2000-2002, \$29,773

National Park Service Research Grant “Genetic variation in limber pine for resistance to white pine blister rust” 2001, \$4,000.

NSF Grant “MtDNA and cpDNA phylogeographies of ponderosa pine and limber pine” 2001-2005, \$250,000.

Joint Venture Agreement with USDA Forest Service “A mtDNA Phylogeography of Ponderosa pine” 2001-2004. \$9,000.

Challenge Cost Share Agreement, USDA Forest Service, “Genetic studies of greenback cutthroat trout” 2002-2003, \$40,000.

Colorado Division of Wildlife Contract “Genetic study of *Thomomys talpoides macrotis*” 5/8/03-6/30/03, \$6,504.

National Park Service Task Agreement “Restoration of native trout subspecies in Rocky Mountain National Park utilizing mitochondrial DNA and microsatellites” Andrew Martin, Co-PI, 2003-2004, \$61,870.

EPA Grant “Genetic variation of piñon pine exposed to radioactive sources” Steve Chischilly, Co-PI (Grant administered by Crownpoint Institute of Technology, Navajo Nation) 2003-2004 \$68,000.

US Fish and Wildlife Service Cooperative Agreement “Analyses of an historic population of greenback cutthroat trout in Dry Gulch” 2005-2006. \$5,000

Butcher Foundation Grant “Analyses of genes associated with endurance performance” Rob Roach, co-PI. 2005 – 2008, \$100,000.

NSF Grant “Deep Underground Science and Engineering Laboratory (DUSEL) Site and Conceptual Design Cooperative Agreements” (NSF 05-506) 2005-2006 \$500,000. This is a collaboration spanning SUNY Stony Brook, CU, CSU, CSM, with \$32,000 awarded to CU. I was a Collaborator and Chair of the Biological Sciences Group.

National Park Service Cooperative Agreement H1200040001 “Understanding the Genetic Composition of Rocky Mountain Bighorn Sheep Herds” 2007-2009

Colorado Division of Wildlife Research Grant “Eagle River Watershed Native Cutthroat Restoration” to John Woodling and Jeff Mitton. \$27,000, 2007 to 2008

DOE grant “Subalpine and alpine species range shifts with climate change: temperature and soil moisture manipulations to test species and population responses” to a consortium of biologists, led by Lara Kueppers at UC Merced. \$2.9 Million. Mitton’s portion is \$160,000, 2007 to 2011.

DOE grant DE-FG02-07ER64457 “Subalpine and alpine species range shifts with climate change: temperature and soil moisture manipulations to test species and population responses” to a consortium of biologists, led by Lara Kueppers (PI) at UC Merced. Co-PIs are Jeff Mitton (CU) John Harte (UC Berkeley) Matthew Germino (ID State University) Margaret Torn (Lawrence Berkeley Lab) Research conducted at CU’s Mountain Research Station. 6/30/11-6/30/12, \$684,381 total, \$103,141 to CU.

Bureau of Reclamation Grant Variable genetic consequences of three-species hybridization: Sucker fish in the Colorado River Basin. Co-PI Se Jin Song. 6/10/11-6/10/12, \$16,180

Boulder County Open Space and Mountain Parks “Does climate change put high elevation forests at greater risk than low elevation forests for bark beetle outbreaks?” to Jeff Mitton and Scott Ferrenberg, \$10,000 April 2011 to January 10, 2012.

DOE grant DE-FG02-07ER64457 “Subalpine and alpine species range shifts with climate change: temperature and soil moisture manipulations to test species and population responses” to a consortium of biologists, led by Lara Kueppers (PI) at UC Merced and Lawrence Berkeley Lab. Co-PIs are Jeff Mitton (CU) John Harte (UC Berkeley) Matthew Germino (ID State University) Margaret Torn (Lawrence Berkeley Lab) Research conducted at CU’s Mountain Research Station. 8/1/2012-7/31/2014, \$1,285,166 total, \$226,112 to CU.

NSF proposal to Population & Community Ecology Cluster. Collaborative Research: Effects of Climate Change on the Elevational Ranges, Population Sizes, and Genetic Structures of Subalpine Conifers. PIs are Jeff Mitton and Lara Kueppers, UC Merced. 3 years, total budget \$740,000, \$246,053 to CU. Not Funded.

Publications

Books

Mitton, J. B. 1973. Genetic and morphological adaptation to thermal stress in the coastal marine fish *Fundulus heteroclitus*. Ph D Thesis, State University of New York at Stony Brook, Stony Brook, New York. 115 pp. (Diss. Abstr. 34:4846; order no. 78-08943)

Mitton, J. B. and K. B. Sturgeon (eds.) 1982. Bark Beetles in North American Conifers: A System for the Study of Evolutionary Biology. University of Texas Press, Austin. 537 pp.

Mitton, J. B. 1997. Selection in Natural Populations. Oxford University Press, New York. 272 pp.

Journal Articles (117)

Koehn, R. K. and J. B. Mitton. 1972. Population genetics of marine pelecypods. I. Ecological heterogeneity and evolutionary strategy at an enzyme locus. *Am. Nat.* 106: 47-56.

Koehn, R. K., F. J. Turano, and J. B. Mitton. 1973. Population genetics of marine pelecypods. II. Genetic differences in microhabitats of *Modiolus demissus*. *Evolution* 27: 100-105.

Mitton, J. B. and R. K. Koehn. 1973. Population genetics of marine pelecypods. III. Epistasis between functionally related isoenzymes of *Mytilus edulis*. *Genetics* 73: 487-496.

Williams, G. C. and J. B. Mitton. 1973. Why reproduce sexually? *J. Theoret. Biol.* 39: 545-554.

Williams, G. C., R. K. Koehn, and J. B. Mitton. 1973. Genetic differentiation without isolation in the American eel, *Anguilla rostrata*. *Evolution* 27: 192-204.

Taylor, C. E. and J. B. Mitton. 1974. Multivariate analysis of genetic variation. *Genetics* 76: 575-585.

Mitton, J. B. and R. K. Koehn. 1975. Genetic organization and adaptive response of allozymes to ecological variables in *Fundulus heteroclitus*. *Genetics* 79: 97-111.

Mitton, J. B. 1975. Fertility differentials in modern societies resulting in normalizing selection for height. *Human Biol.* 47: 189-200.

- Bekoff, M., H. L. Hill, and J. B. Mitton. 1975. Behavioral taxonomy in canids by discriminant function analyses. *Science* 190: 1223-1225.
- Koehn, R. K., R. Milkman, and J. B. Mitton. 1976. Population genetics of marine pelecypods. IV. Selection, migration and genetic differentiation in the blue mussel, *Mytilus edulis*. *Evolution* 30: 2-32.
- Mitton, J. B. and R. K. Koehn. 1976. Morphological adaptation to thermal stress in a marine fish, *Fundulus heteroclitus*. *Biol. Bull.* 151: 548-559.
- Mitton, J. B. 1977. Genetic differentiation of races of man as judged by single locus and multilocus analyses. *Am. Nat.* 111: 203-212.
- Grant, M. C. and J. B. Mitton. 1977. Genetic differentiation among growth forms of Engelmann spruce and subalpine fir at tree line. *Arctic and Alpine Res.* 9: 259-263.
- Mitton, J. B., Y. B. Linhart, J. L. Hamrick, and J. S. Beckman. 1977. Observations on the genetic structure and mating system of ponderosa pine in the Colorado Front Range. *Theor. Appl. Genet.* 7: 5-13.
- Mitton, J. B. 1977. Shell color and pattern variation in *Mytilus edulis* and its adaptive significance. *Ches. Sci.* 18: 387-390.
- Mitton, J. B. 1978. Relationship between heterozygosity for enzyme loci and variation of morphological characters in natural populations. *Nature* 273: 661-662.
- Mitton, J. B. 1978. Measurement of differentiation: reply to Lewontin, Powell, and Taylor. *Am. Nat.* 112: 1142-1144.
- Bock, C. E., J. B. Mitton, and L. W. Lephien. 1978. Winter biogeography of North American Fringillidae (Aves): A numerical analysis. *Syst. Zool.* 27: 411-420.
- Pierce, B. A. and J. B. Mitton. 1979. A relation of genetic variation within and among populations: an extension of the Kluge-Kerfoot phenomenon. *Syst. Zool.* 28: 63-70.
- Mitton, J. B., Y. B. Linhart, K. B. Sturgeon, and J. L. Hamrick. 1979. Allozyme polymorphisms detected in mature needle tissue of ponderosa pine. *J. Hered.* 70: 86-89.
- Hamrick, J. L., Y. B. Linhart, and J. B. Mitton. 1979. Relationship between life history parameters and electrophoretically-detectable genetic variability in plants. *Ann. Rev. Ecol. Syst.* 10: 173-200.
- Grant, M. C. and J. B. Mitton. 1979. Elevational gradients in adult sex ratios and sexual differentiation in vegetative growth rates of *Populus tremuloides* Michx. *Evolution* 33: 914-918.

Linhart, Y. B., J. B. Mitton, D. M. Bowman, and K. B. Sturgeon. 1979. Genetic aspects of fertility differentials in ponderosa pine. *Genet. Res.* 33: 237-242.

Mitton, J. B. and M. C. Grant. 1980. Observations on the ecology and evolution of quaking aspen, *Populus tremuloides*, in the Colorado Front Range. *Am. J. Bot.* 67: 202-209.

Sturgeon, K. B. and J. B. Mitton. 1980. Cone color polymorphism associated with elevation in white fir, *Abies concolor*, in southern Colorado. *Am. J. Bot.* 67: 1040-1045.

Mitton, J. B. and B. A. Pierce. 1980. The distribution of individual heterozygosity in natural populations. *Genetics* 95: 1043-1054.

Pierce, B. A. and J. B. Mitton. 1980. Patterns of allozyme variation in *Ambystoma tigrinum mavortium* and *A. t. nebulosum*. *Copeia* 1980: 594-605.

Collins, J. P., J. B. Mitton, and B. A. Pierce. 1980. *Ambystoma tigrinum* (Green): A multi-species conglomerate? *Copeia* 1980: 938-941.

Abbott, L. A. and J. B. Mitton. 1980. Diagnoses generated by numerical taxonomic methods applied to standard blood variables. *Meth. Inform. Med.* 19: 205-209.

Pierce, B. A. and J. B. Mitton. 1980. The relationship between genome size and genetic variation. *Am. Nat.* 116: 850-861.

Mitton, J. B., K. B. Sturgeon, and M. L. Davis. 1980. Genetic differentiation in ponderosa pine along a steep elevational gradient. *Silvae Genetica* 29: 100-103.

Knowles, P. and J. B. Mitton. 1980. Genetic heterozygosity and radial growth variability in *Pinus contorta*. *Silvae Genetica* 29: 114-117.

Linhart, Y. B., J. B. Mitton, K. B. Sturgeon, and M. L. Davis. 1981. Genetic variation in space and time in a population of ponderosa pine. *Heredity* 46: 407-426.

Linhart, Y. B., M. L. Davis, and J. B. Mitton. 1981. Genetic control of allozymes of shikimate dehydrogenase in ponderosa pine. *Biochem. Genet.* 19: 641-646.

Pierce, B. A., J. B. Mitton and F. L. Rose. 1981. Allozyme variation among large, small, and cannibal morphs of the tiger salamander inhabiting the Llano Estacado of West Texas. *Copeia*. 1981: 590-595.

Bekoff, M., J. Diamond, and J. B. Mitton. 1981. Life history patterns and sociality in canids: body size, reproduction, and behavior. *Oecologia* 50: 386-390.

Mitton, J. B. and R. Andalora. 1981. Genetic and morphological relationships between blue spruce, *Picea pungens* Engelm., and Engelmann spruce, *Picea engelmannii* Parry, in the Colorado Front Range. *Can. J. Bot.* 59: 2088-2094.

Byers, B. A. and J. B. Mitton. 1981. Habitat choice in a marine snail. *Marine Biology* 65: 149-154.

Mitton, J. B., Y. B. Linhart, M. L. Davis and K. B. Sturgeon. 1981. Estimation of outcrossing in ponderosa pine, *Pinus ponderosa* Laws, from patterns of segregation of protein polymorphisms and from frequencies of albino seedlings. *Silvae Genetica* 30: 117-121.

Pierce, B. A. and J. B. Mitton. 1982. Allozyme heterozygosity and growth in the tiger salamander, *Ambystoma tigrinum*. *J. Hered.* 73: 250-253.

Pierce, B. A., J. B. Mitton, L. Jacobson, and F. L. Rose. 1983. Head shape and size in cannibal and noncannibal larvae of tiger salamander from West Texas. *Copeia* 1983: 1006-1012.

Beckman, J. S. and J. B. Mitton. 1984. Peroxidase allozyme differentiation among successional stands of ponderosa pine. *Amer. Midl. Nat.* 112: 43-49.

Mitton, J. B. and M. C. Grant. 1984. Relationships among protein heterozygosity, growth rate, and developmental stability. *Ann. Rev. Ecol. Syst.* 15: 479-499.

Farris, M. A. and J. B. Mitton. 1984. Population density, outcrossing rate, and heterozygote superiority in ponderosa pine. *Evolution* 38: 1151-1154.

Mitton, J. B. 1985. So grows the tree. *Natural History*, January.

Linhart, Y. B. and J. B. Mitton. 1985. Relationships among reproduction, growth rate, and protein heterozygosity in ponderosa pine. *Amer. J. Bot.* 72: 181-184.

Mitton, J. B. and R. K. Koehn. 1985. Shell shape variation in the blue mussel, *Mytilus edulis*, and its association with enzyme heterozygosity. *J. Exp. Mar. Biol. Ecol.* 90: 73-80.

Mitton, J. B. and P. H. Odense. 1985. Muscle esterase variation and size variation in the sand lance, *Ammodytes dubius*. *Marine Biology* 87: 279-283.

Farris, M. A. and J. B. Mitton. 1985. The effects of a cone color dimorphism on the reproductive output of white fir growing along elevational gradients. *Amer. J. Bot.* 72: 1719-1725.

- Sturgeon, K. B. and J. B. Mitton. 1986. Allozyme and morphological differentiation of mountain pine beetles, *Dendroctonus ponderosae*, Hopkins (Coleoptera: Scolytidae) associated with host tree. *Evolution* 40: 290-302.
- Sturgeon, K. B. and J. B. Mitton. 1986. Biochemical diversity of *Pinus ponderosa* Laws. and predation by bark beetles, *Dendroctonus* spp. (Coleoptera: Scolytidae). *J. Econ. Entomol.* 79: 1064-1068.
- Mitton, J. B., C. Carey, and T. D. Kocher. 1986. The relation of enzyme heterozygosity to standard and active oxygen consumption and body size of tiger salamanders, *Ambystoma tigrinum*. *Physiol. Zool.* 59: 574-582.
- Berg, C. J. Jr., J. B. Mitton and K. S. Orr. 1986. Genetic analysis of the queen conch *Strombus gigas*. I. Preliminary implications for fisheries management. *Proc. Gulf Carib. Inst.* 37: 112-118.
- Rainey, D. Y., J. B. Mitton, and R. K. Monson. 1987. Associations between enzyme genotype and dark respiration in perennial ryegrass, *Lolium perenne*. *Oecologia* 74: 335-338.
- Jones, T. R., J. P. Collins, T. D. Kocher, and J. B. Mitton. 1988. Systematic status and distribution of *Ambystoma tigrinum stebbinsi* Lowe (Amphibia: Caudata). *Copeia* 1988: 621-635.
- Coelho, J. R. and J. B. Mitton. 1988. Oxygen consumption during hovering is associated with genetic variation of enzymes in honeybees. *Functional Ecology* 2: 141-146.
- Stutz, H. P. and J. B. Mitton. 1988. Genetic variation in Engelmann spruce associated with variation in soil moisture. *Arct. Alp. Res.* 20: 461-465.
- Schuster, W. S., D. L. Alles, and J. B. Mitton. 1989. Gene flow in limber pine: evidence from pollination phenology and genetic differentiation along an elevational transect. *Amer. J. Bot.* 76: 1395-1403.
- Mitton, J. B. and R. M. Jeffers. 1989. The genetic consequences of mass selection for growth rate in Engelmann spruce. *Silvae Genetica* 38: 6-12.
- Mitton, J. B., H. P. Stutz, W. S. Schuster, and K. L. Shea. 1989. Genotypic differentiation at PGM in Engelmann spruce from wet and dry sites. *Silvae Genetica* 38: 217-221.
- Mitton, J. B., C. Berg, Jr., and K. Orr. 1989. Population structure, larval dispersal, and gene flow in the queen conch, *Strombus gigas*. *Biol. Bull.* 177: 356-362.
- Mitton, J. B. and W. M. Lewis, Jr. 1989. Relationships between genetic variability and life-history features of bony fishes. *Evolution* 43: 1712-1723.

- Mitton, J. B. and M. Raphael. 1990. Genetic variation in the marten, *Martes americana*. *J. Mamm.* 71: 195-197.
- Rainey, D. Y., J. B. Mitton, R. K. Monson, and D. Wilson. 1990. Effects of selection for dark respiration rate on enzyme genotypes in *Lolium perenne* L. *Annals of Botany* 66: 649-654.
- Mopper, S., J. B. Mitton, T. G. Whitham, N. S. Cobb, and K. M. Christensen. 1991. Genetic differentiation and heterozygosity in pinyon pine associated with resistance to herbivory and environmental stress. *Evolution* 45: 989-999.
- Schuster, W. S. F. and J. B. Mitton. 1991. Relatedness within clusters of a bird-dispersed pine and the potential for kin interactions. *Heredity* 67: 41-48.
- Betancourt, J. L., W. S. Schuster, J. B. Mitton, and R. S. Anderson. 1991. Fossil and genetic history of a pinyon pine (*Pinus edulis*) isolate. *Ecology* 72: 1685-1697.
- Mitton, J. B. 1992. The dynamic mating systems of conifers. *New forests* 6: 197-216.
- Mitton, J. B. and W. M. Lewis, Jr. 1992. Response to Waples' comment on heterozygosity and life history variation in bony fishes. *Evolution* 46: 576-577.
- Grant, M. C., J. B. Mitton, and Y. B. Linhart. 1992. Even larger organisms. *Nature* 360: 216. (letter)
- Mitton, J. B., W. S. F. Schuster, E. G. Cothran, and J. De Fries. 1993. The correlation in heterozygosity between parents and their offspring. *Heredity* 71: 59-63.
- Smith, H. M., D. Chiszar, E. Evanoff, and J. B. Mitton. 1993. The range of the so-called relic intergrades between the lizards *Sceloporus undulatus garmani* and *S. u. erythrocheilus*. *Bulletin of the Maryland Herpetological Society* 29: 30-36.
- Liu, H. P. and J. B. Mitton. 1993. A technique to reveal restriction fragment length polymorphisms (RFLP's) in the genus *Physa*. *Malacological Review* 26: 89-90.
- Ford, M. J. and J. B. Mitton. 1993. Gene flow among populations and the degree of relatedness within populations of the pink barnacle, *Tetraclita squamosa rubescens*. *Molecular Marine Biology and Biotechnology* 3: 147-153.
- Mitton, J. B. 1993. Enzyme heterozygosity, metabolism, and developmental stability. *Genetica* 89: 47-65.
- Cobb, N., J. B. Mitton, and T. G. Whitham. 1994. Genetic variation associated with chronic water and nutrient stress in pinyon pine. *Amer. J. Bot.* 81: 936-940.

Premoli, A., S. Chischilly, and J. B. Mitton. 1994. Genetic variation and the establishment of new populations of pinyon pine. *Biodiversity and Conservation* 3: 331-340.

Mitton, J. B., D. J. Zelenka, and P. A. Carter. 1994. Selection of breeding stock in pigs favours 6PGD heterozygotes. *Heredity* 73: 177-184.

Mitton, J. B. 1994. Molecular approaches to population biology. *Annu. Rev. Ecol. Syst.* 25: 45-69.

Chaisurisri, K., Y. El-Kassaby, and J. B. Mitton. 1994. Variation in the mating system of Sitka spruce and assortative mating at the Pgm-2 locus. *Amer. J. Bot.* 81: 1410-1415.

Schuster, W. S. F., J. B. Mitton, D. Yamaguchi, and C. A. Woodhouse. 1995. Young populations and ancient trees: A comparison of limber pine ages at lower and upper treeline sites east of the Continental Divide. *Amer. Midl. Nat.* 133: 101-111.

Grant, M. C. and J. B. Mitton. 1995. (Untitled letter). *Science News* 147: 243-252.

Rainey-Foreman, D. and J. B. Mitton. 1995. Natural selection of UDP genotypes in an experimental population of *Lolium perenne* (Poaceae). *Am. J. Bot.* 82: 811-815.

Rainey-Foreman, D. and J. B. Mitton. 1995. Glucose utilization by 6Pgd genotypes in *Lolium perenne*. *Molecular Ecology* 4: 231-237.

Kreiser, B. R. and J. B. Mitton. 1995. The evolution of cold tolerance in *Corbicula fluminea* (Bivalvia: Corbiculidae). *The Nautilus* 109: 111-112.

Mitton, J. B. 1995. Enzyme heterozygosity and developmental stability. *Acta Theriologica supplement* 3: 33-54.

Mitton, J. B. and M. C. Grant. 1996. Genetic variation and the natural history of quaking aspen. *BioScience* 46: 25-31.

Liu, H.-P., J. B. Mitton and S.-K. Wu. 1996. Paternal mitochondrial DNA differentiation far exceeds maternal mitochondrial DNA and allozyme differentiation in the freshwater mussel, *Anodonta grandis grandis*. *Evolution* 50: 952-957.

Liu, H.-S. and J. B. Mitton. 1966. Tissue-specific maternal and paternal mitochondrial DNA in the freshwater mussel, *Anodonta grandis grandis*. *J. Molluscan Studies* 62: 393-394.

Liu, H.-P., J. B. Mitton, and S. J. Herrmann. 1996. Genetic differentiation and management recommendations for the freshwater mussel, *Pyganodon grandis*. *American Malacological Bulletin* 13: 117-124.

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- 1) Ribbon forests: survival of the fittest among deep snow and crisp winds April 9, 2000
- 2) The tiger salamander's vicious tricks April 23, 2000
- 3) Bark beetle epidemics May 14, 2000
- 4) Mutualism among birds and pines May 28, 2000
- 5) Poisonous perfumes protect pines July 7, 2000
- 6) Hybridizing cottonwoods August 6, 2000
- 7) Immense and ancient quaking aspen September 10, 2000
- 8) A deadly game of hide 'n' seek October 15, 2000
- 9) Elevation, climate, and forests November 19, 2000
- 10) Voles burrow through the winter January 7, 2001
- 11) The evolution of a parasite February 25, 2001
- 12) Read evolutionary history in lodgepole cones April 1, 2001
- 13) Robins and marmots out in the cold, May 13, 2001
- 14) Little plants kill big trees July 1, 2001
- 15) Boulder's vulture trees September 16, 2001
- 16) The mussels of yesterday October 21, 2001
- 17) What females want December 9, 2001
- 18) Dedicated collectors January 20, 2002
- 19) Diet specialists March 3, 2002
- 20) Stealing food and defenses April 14, 2002
- 21) Flying anteaters: The reluctant woodpecker May 26, 2002
- 22) Colorful top predator June 30, 2002
- 23) Fish in a drought August 11, 2002

- 24) Hay farming on a talus slope (Pikas race against winter year round) September 22, 2002
- 25) A house of stones October 27, 2002
- 26) Playful harbinger of death December 15, 2002
- 27) DNA detects new species January 26, 2003
- 28) Beaver fever warning March 9, 2003
- 29) Buckeye defenses April 20, 2003
- 30) For barn swallows, size does matter June 1, 2003
- 31) Underwater flyers July 13, 2003
- 32) Nature's dam builder August 24, 2003
- 33) Chubby hibernator October 5, 2003
- 34) Consuming love November 23, 2003
- 35) Flowers, moths follow the fire December 28, 2003
- 36) An unwelcome immigrant January 18, 2004
- 37) Shattered spruces March 20, 2004
- 38) Fastest on the prairie April 3, 2004
- 39) Marching into the river April 17, 2004
- 40) A moth in the soap May 1, 2004
- 41) New species in new landscape May 15, 2004
- 42) A biodiversity hot spot May 29, 2004
- 43) The ecology of cone color June 12, 2004
- 44) Foxes learn city ways June 26, 2004
- 45) Lilies disperse underground July 17, 2004
- 46) Enigma of the big cones July 31, 2004

- 47) Fish in a dry creek August 14, 2004
- 48) Close encounter with moose August 28, 2004
- 49) In defense of a harem September 11, 2004
- 50) Monarch migrations September 25, 2004
- 51) Besieged prairie dogs October 9, 2004
- 52) Colorado's largest bird October 23, 2004
- 53) Those dear deer mice November 6, 2004
- 54) Warming drives species north November 20, 2004
- 55) The world of the burying beetle December 3, 2004
- 56) Colorado's top predator December 18, 2004
- 57) Evolution: Hypothesis and fact January 1, 2005
- 58) Turtles asleep in the mud January 15, 2005
- 59) Steller's jays face new pressures January 29, 2005
- 60) Mudsnaills: an invader without enemies February 11, 2005
- 61) A lizard adaptation benefits humans February 25, 2005
- 62) An extinction not mourned March 11, 2005
- 63) Of dandelions, hybrids, and extinction, April 1, 2005
- 64) Ghost of a river lives in the genes of a fish April 15, 2005
- 65) El Niño triggers butterfly migrations April 29, 2005
- 66) A new species amid ancient fossils May 13, 2005
- 67) History buried in the cliffs May 27, 2005
- 68) Caterpillars spin silky system of survival June 17, 2005
- 69) Lupines help and hurt humans and animals June 24, 2005

- 70) State's largest fish a shadow of its former self July 8, 2005
- 71) Thyme's aroma is part of chemical defense July 22, 2005
- 72) Sharp on the outside, sweet on the inside August 12, 2005
- 73) Intelligent design isn't an intelligent idea August 26, 2005
- 74) Microbes a mile down September 9, 2005
- 75) Spiral trees on windy ridges September 23, 2005
- 76) Parasites bearing alien genes October 14, 2005
- 77) Tadpoles in the potholes October 28, 2005
- 78) Trees march across the tundra November 11, 2005
- 79) Don't put all your eggs in one nest November 24, 2005
- 80) If these rocks could talk December 9, 2005
- 81) Spider crossing December 23, 2005
- 82) The pharmacy in the forest January 6, 2006
- 83) Drilling for wood-boring insects January 20, 2006
- 84) A fuzzy tower of dangerous seeds February 3, 2006
- 85) Pasque flowers and snow buttercups February 17, 2006
- 86) Mysteries of the Owl Canyon pinyon March 3, 2006
- 87) Mixed up in the canyons March 17, 2006
- 88) Milkweed toxins defend butterflies from birds March 31, 2006
- 89) A scourge of spurge April 14, 2006
- 90) Pop goes the teasel April 28, 2006
- 91) Caterpillars take on toadflax May 12, 2006
- 92) Evolution spurred by climate change May 26, 2006

- 93) Ponderosa pines change with elevation June 9, 2006
- 94) The right genotype in the wrong place June 23, 2006
- 95) A resurgence of blue July 7, 2006
- 96) Imitation isn't always flattery July 28, 2006
- 97) An offensive chemical defense August 11, 2006
- 98) Sacred and deadly August 25, 2006
- 99) The diversity of life in a slot canyon September 8, 2006
- 100) Lichens promote ice formation September 22, 2006
- 101) Yellow jackets on the roses October 6, 2006
- 102) Miniature spiny dinosaurs become ladies October 20, 2006
- 103) A flexible mating strategy November 3, 2006
- 104) Legs for stinging, legs for snaring November 17, 2006
- 105) Eyes on the back of its head December 1, 2006
- 106) Galls and fluffy balls of wax December 15, 2006
- 107) Pigeons provided evolutionary data December 29, 2006
- 108) Sharp eyes high in the sky January 26, 2006
- 109) Gallery forests invite fox squirrels west February 9, 2007
- 110) A flock of red-winged blackbirds February 23, 2007
- 111) Early buds a local sign of climate change March 9, 2007
- 112) Early cottonwood buds are a local sign of climate change, Grand Junction Daily Sentinel, March 25, 2007
- 113) The highly social pygmy nuthatch March 23, 2007
- 114) Kinnikinnick's chemical defenses April 6, 2007

- 115) House sparrows sleep with owls April 20, 2007
- 116) Blue-eyed Mary lights up the forest May 4, 2007
- 117) Magpies the most colorful in a noisy family May 18, 2007
(then under the title “Dogs and songbirds are bedeviled by mischievous magpies” Grand Junction Daily Sentinel, May 27, 2007)
- 118) Deadly proteins protect prince’s plume June 1, 2007
- 119) Green bottle flies first to a stench June 15, 2007
- 120) Offensive fangs, defensive rattle June 29, 2007
- 121) Carrion beetles on an elk carcass July 13, 2007
- 122) Truly ancient creatures fly in Boulder July 27, 2007
- 123) Ants defend caterpillars in exchange for food August 10, 2007
- 124) Orchids take nutrients from pines and fungi August 24, 2007
- 125) Robber flies carry their food September 7, 2007
- 126) Resourceful golden-mantled ground squirrels September 21, 2007
- 127) Song dialects in white-crowned sparrows October 5, 2007
- 128) Deceptive butterflies confuse hunting birds October 19, 2007
- 129) Ospreys evoke remorse and hope November 16, 2007
- 130) The bite of an assassin November 30, 2007
- 131) Crossbills adapted to different conifers December 14, 2007
- 132) Masters of camouflage December 28, 2007
- 133) Magpies and ravens recycle elk January 11, 2008
- 134) The uninvited guests of winter January 25, 2008
- 135) The beetles are coming (Meet the beetles) February 8, 2008
- 136) A dwindling herd of bighorn February 22, 2008

- 137) Don't let the bed bugs bite March 7, 2008
- 138) European paper wasps ensconced in Boulder March 21, 2008
- 139) Extremely social tree swallows April 4, 2008
- 140) Agile spiders without webs April 18, 2008
- 141) Silent nocturnal hunter May 2, 2008
- 142) Surrender a blood meal, suffer a disease May 16, 2008
- 143) Owls bring snakes home—alive May 30, 2008
- 144) Water striders skim the surface June 13, 2008
- 145) Furtive singers in slot canyons June 27, 2008
- 146) The evolution of crypsis July 11, 2008
- 147) Tigers take wing in the meadow August 8, 2008
- 148) Earwigs pinch, spray and stink August 22, 2008
- 149) Beetles bleed defensively September 5, 2008
- 150) Pillbugs and sowbugs September 19, 2008
- 151) Nuthatches as tree guardians October 3, 2008
- 152) Poisonous caterpillars, palatable moths October 17, 2008
- 153) Delicious invaders October 31, 2008
- 154) Scarab beetles draw a crowd November 14, 2008
- 155) Parade of pollinators November 28, 2008
- 156) Colorful kestrel is our smallest falcon December 12, 2008
- 157) Let them eat wood December 26, 2008
- 158) Piñon pines call wasps for backup January 9, 2009
- 159) The flies of winter January 23, 2009

- 160) Sawflies manipulate willows February 13, 2009
- 161) Grosbeaks and spruce cones March 6, 2009
- 162) Tipping cow pies March 20, 2009
- 163) White marsh marigolds have roots in ice water April 3, 2009
- 164) Primitive yet indivisible April 17, 2009
- 165) Ditches transform semi-arid environment May 1, 2009
- 166) Uniquely radiant Western Tanagers May 29, 2009
- 167) Spiderwort, snotweed, cow slobber June 12, 2009
- 168) The Great Sand Dunes tiger June 26, 2009
- 169) A powerful, burrowing predator August 7, 2009
- 170) Hovering iridescence August 21, 2009
- 171) A bright lady slipper in a dark forest September 4, 2009
- 172) Waxwings and microbes compete for fruit September 18, 2009
- 173) Parasite drives host to attempt suicide October 2, 2009
- 174) Spadefoot toad adapts to desert's aridity October 16, 2009
- 175) The conspicuous presence of a small squirrel October 30, 2009
- 176) Rename Gore Pass, Range and Canyon November 13, 2009, Also: Pass, Range and Canyon Named for Wrong Gore, Sky-Hi Daily News, December 15; Vail Valley Voices: Should rename Gore Range and Valley, Vail Daily, January 10, 2010
- 177) Tortoises and cactus trees in the Galapagos November 27, 2009
- 178) Marine iguanas older than their islands December 11, 2009
- 179) Inconspicuous lizards evolved to blend in December 25, 2009
- 180) Quiet struggle between brook and cutthroat trout January 8, 2010
- 181) An introduced parasite in a wilderness January 22, 2010

- 182) Rock squirrels mob rattlesnakes February 5, 2010
- 183) Beelike flies hunt hosts for their eggs February 19, 2010
- 184) Easter daisies evolved to follow shrinking glaciers March 5, 2010
- 185) Evening primrose flowers at dusk, fades in the day March 19, 2010
- 186) A majestic and raucous gathering of sandhill cranes April 16, 2010
- 187) Why do elk tolerate magpies? April 30, 2010
- 188) Caterpillar or coral snake? May 14, 2010
- 189) Cliffrose, fragrant shrub in scenic sites May 28, 2010
- 190) House sparrows: exemplars of evolution June 11, 2010
- 191) Discover the mystery of secretive pocket gophers July 9, 2010
- 192) Tortoise beetles and fecal shields July 23, 2010
- 193) Crossing paths with hawkmoths and night blooming flowers August 6, 2011
- 194) Daddy long legs: spiders, harvestmen, crane flies August 20, 2010
- 195) Special equipment shines a light on the desert scorpion September 3, 2010
- 196) Moose in the willows September 17, 2010
- 197) Sweet disposition, demonic defense October 1, 2010
- 198) Western scrub jays: Colorful camp robbers October 15, 2010
- 199) Aspens brighten charred lands October 29, 2010
- 200) Wheel bugs: a shield shaped like a sprocket November 12, 2010
- 201) Collared doves quickly colonized North America November 26, 2010
- 202) Spiders disperse on strands of silk November 10, 2010
- 203) Gray jays are winter residents in lodgepole, spruce forests December 24, 2010
- 204) Brilliant lichens reveal mammal perches January 7, 2011

- 205) The spiders of Browns Canyon January 21, 2011
- 206) Odd-looking mantidflies feast on spiders February 4, 2011
- 207) A lizard, a petrified log and a dinosaur February 18, 2011
- 208) An inaccessible nest in a wilderness March 4, 2011
- 209) Jackrabbits: Big feet, enormous ears March 18, 2011
- 210) The solitary lives of cactus bees April 1, 2011
- 211) Stonecrop climbs mountains as glaciers shrink April 29, 2011
- 212) Provisioning food for the next generation May 27, 2011
- 213) Mysterious desert varnish June 10, 2011
- 214) The perplexing pattern of the painted turtle June 24, 2011
- 215) A snapping turtle takes a defensive posture July 8, 2011
- 216) The familiar shrill of mountain cicadas July 22, 2011
- 217) Peacock flies dance on a thistle August 5, 2011
- 218) The curious color of the fungus beetle August 19, 2011
- 219) Brine flies provide a feast for birds and humans January 6, 2012
- 220) Clearwing moths are convincing mimics of bees and wasps January 20, 2012
- 221) Bristlecones grow slowly to survive millennia February 3, 2012
- 222) House finches demonstrate natural selection and evolution February 16, 2012
- 223) Stink beetles's threat posture precedes spray of repugnant fluid March 1, 2012
- 224) Lichens engrave stone March 15, 2012
- 225) The mountain pine beetle's unprecedented summer generation April 26, 2012
- 226) Mutual interdependence of yucca and yucca moths May 11, 2012
- 227) Acorn woodpeckers cooperate to breed and feed May 25, 2012

- 228) The collared lizard's imperfect adaptations June 8, 2012
- 229) Drifting and dancing down Browns Canyon June 22, 2012
- 230) Browns Canyon National Monument? July 13, 2012
- 231) A swarm of puddling swallowtails July 20, 2012
- 232) Crab spiders change colors to match their plants August 2, 2012
- 233) Fear of and fascination with snakes August 16, 2012
- 234) The complex life cycle of a checkered beetle August 30, 2012
- 235) Buffalo in a majestic setting September 14, 2012
- 236) Pseudoscorpions, common but rarely noticed September 28, 2012
- 237) Mites feast on fallen fly at sand dunes October 12, 2012
- 238) Warts on a toad advertise its defenses October 26, 2012
- 239) Horse flies harass horses humans and toads November 9, 2012
- 240) Wild turkeys are thriving November 23, 2012
- 241) Cochineals turn juices into bright colors December 7, 2012
- 242) Pine siskins wander to follow seed crop December 21, 2012
- 243) Rabbitbrush beetles enjoy an uncontested food source July 19, 2013
- 244) Imminent conflagration or hype? August 2, 2013
- 245) Ephemeral and elusive micocosms live in potholes August 16, 2013
- 246) A fly that looks like a bee August 30, 2013
- 247) Is it a sphinx moth or a hummingbird? September 13, 2013
- 248) Water: required for life, deadly in excess September 27, 2013
- 249) A parade of bears through Boulder October 11, 2013
- 250) Parasitic plants move genes October 25, 2013
- 251) Whiptails fueled by grasshoppers November 8 2013

- 252) A new threat to the ornate box turtle November 22, 2013
- 253) Resin canals measure resistance to beetle attacks December 6, 2013
- 254) Horehound thrives on overgrazed sites December 20, 2013
- 255) Each group of islands has its own iguana January 3, 2014
- 256) Wood frogs freeze in winter, resume activity in spring January 17, 2014
- 257) The nasty sting of the velvet ant January 31, 2014
- 258) Colors and mating strategies of side-blotched lizards February 28, 2014
- 259) Mites eat insects and insects eat mites March 14, 2014
- 260) Extinction continues today March 28, 2014
- 261) CU-Boulder academics converge on manioc April 11, 2014
- 262) The evolution of lactose tolerance April 25, 2014
- 263) Mountain chickadees nest in cavities May 9, 2014
- 264) Beavertail cacti forsake spines to gain flowers May 23, 2014
- 265) Desert annuals flower profusely in the shale barrens June 6, 2014
- 266) Douglas-fir tussock moth defoliates a blue spruce July 4, 2014
- 267) Could contrails influence our climate? July 18, 2014
- 268) A colorful robin lacking pigments August 1, 2014
- 269) Wolf spiders carry their young August 14, 2014
- 270) Ring muhly, a clonal grass that forms circles August 28, 2014
- 271) Clark's nutcrackers face lean times September 12, 2014
- 272) Sapsuckers draw a crowd September 26, 2014
- 273) Camp robber earns its name October 10, 2014
- 274) Smooth sumac October 24, 2014

- 275) Miner's socks attract flies November 7, 2014
- 276) Chicory's defensive compounds make a tasty hot drink November 21, 2014
- 277) Boulder's hybrid zones feature cottonwoods, spruces and birches December 5, 2014
- 278) Bumblebees hug shooting stars December 19, 2014
- 279) Antlers and horns: armament and signals of reproductive value January 30, 2015
- 280) Painted milkvetch's curious seed pod February 13, 2015
- 280) Sweet vs skunky sky pilots February 26, 2015
- 281) Chocolate through the ages March 13, 2015
- 282) Ponderosa pines, mountain chickadees and western pine beetles migrated together March 27, 2015
- 283) Multiple colors and forms of columbines April 10, 2015
- 284) Rust fungus induces flower mimics in host plants April 24, 2015
- 285) Chokecherries invite pollinators and frugivores but poisons herbivores May 8, 2015
- 286) Spruce adelgids trick trees into making galls May 22, 2015
- 287) Cliff swallows mine mud to make nests June 19 2015
- 288) American forests transformed by series of invading species July 3, 2015
- 289) Dragonfly mating wheels and guarding behavior August 14, 2015
- 290) Spittlebugs grow into froghoppers August 28, 2014
- 291) Puzzling patterns in sandstone September 11, 2015
- 292) The predator above my front door September 25, 2015
- 293) Desert biocrusts threatened by climate change October 9, 2015
- 294) Sunflowers on sand dunes October 23 2015
- 295) Stinkhorn mushrooms manipulate flies to disperse their spores November 7, 2015

- 296) Sharpshooters and their symbiotic bacteria evolved together for 25 million years
November 21, 2015
- 297) Why are male jagged ambush bugs darker than females? December 4, 2015
- 298) Red-spotted toads pop up in the driest of environments Jan 15, 2016
- 299) Tiny flies make wooly bud galls on tall sagebrush January 29, 2016
- 300) Three-lined potato beetles rely on the defenses of sacred datura February 12, 2016
- 301) Western conifer seed bugs are invading February 26, 2016
- 302) The phenomena that brighten dawn and dusk March 24, 2016
- 303) Chirping male field crickets advertise their ages to attract females April 8, 2016
- 304) Sand treaders move continually among the dunes April 22, 2016
- 305) This downy woodpecker is an opportunistic forager May 6, 2016
- 306) Desert bighorn sheep at Colorado National Monument May 20, 2016
- 307) Leaves of roundleaf buffaloberry adapt to hot, dry environments June 17, 2016
- 308) Horse chestnut trees provide a floral display but produce nothing edible July 1, 2016
- 309) A food web based on annual sunflowers and leafhoppers July 28, 2016
- 310) Japanese beetles decimate the roses August 12, 2016
- 311) Ranchers despise locoweed August 26, 2016
- 312) The wonders of fall colors September 9, 2016
- 313) Desert four o'clocks usually grow in the shade of a juniper September 22, 2016
- 314) Sumac Flea beetles make good use of a distasteful host plant October 6, 2016
- 315) Cheatgrass swept through the Great Basin, permanently altering plant communities October 22, 2016
- 316) Blackbrush dominates ecotones between cold, warm deserts November 4,

2016

317) Great spreadwings have spread from the southwest to northern New England November 18, 2016

318) Moving bee hive at CU-Boulder a sticky proposition December 2, 2016

319) Manzanita's curious red bark December 16, 2016

320) False hellebore uses temperature cues to trigger sexual and asexual reproduction two years out December 31, 2016

321) Puffballs are tasty when young, smoke ominously when mature January 13, 2017

322) Pandora pinemoth populations erupt to defoliate pines January 27, 2017

323) Sale of Utah's Comb Ridge reminds us of the tragedy of Hetch Hetchy February 13, 2017

324) A shield bug preys on tent caterpillars February 24, 2017

325) Gregarious bushtits have arrived March 10, 2017

326) In spring, we see colorful willows growing pine cones March 24, 2017

327) The beetles in the cactus flowers are not pollinators April 28, 2017

328) A startling creature in the sand May 5, 2017

329) An ingenious predator digs pit traps June 2, 2017

330) Bullsnares mimic rattlesnakes—but do not eat them. June 16, 2017

331) Microscopic structures on moss leaves collect water from humid air June 30, 2017

332) Treehoppers' environments are defined by their host species July 28, 2017

333) Coincidence of large cone crops and winds results in conifer blowdown August 25, 2017

334) Third epidemic in a decade: fir engravers killing white fir September 8, 2017

335) Archeological Treasures in Bears Ears September 22, 2017

336) A prolonged migration of painted ladies October 20, 2017

337) Biocontrol weevil appears out of control November 2, 2017

338) Antelope horns milkweeds grow in intermittent streambeds on the Colorado Plateau November 16, 2017

339) An aquatic buttercup produces three types of leaves December 1, 2017
December 15

340) Recreational shooting is incompatible with the purposes of Colorado wilderness areas December 29, 2017

341) The curious history of horses in North America January 12, 2018

342) Gritty plants deter herbivores January 26, 2018

Doctoral Students (Year of graduation and present position)

Dr. Benjamin Pierce. 1980. Professor, Southwestern University.

Dr. Karen Sturgeon. 1980. Professor, Linfield College.

Dr. Bruce Byers. 1981. Environmental Consultant, Washington, DC

Dr. Thomas Kocher. 1985. Professor, University of New Hampshire.

Dr. Michael Farris. 1986. Associate Professor, Hamline University.

Dr. William Schuster. 1988. Director, Black Rock Forest, Columbia University.

Dr. Daphne Rainey-Foreman. 1989. Associate Professor, Macalester College.

Dr. Hans-Peter Stutz. 1990. Federal Forest Biologist, Zurich, Switzerland.

Dr. Patrick Carter. 1992. Professor, Washington State University.

Dr. Hsiu-Ping Liu. 1994. Research Associate, Denver University.

Dr. Robert Latta. 1996. Professor, Dalhousie University.

Dr. Scott Kelley. 1998. Professor, San Diego State University.

Dr. Brian Kreiser. 1999. Professor, Southern Mississippi State University.

Dr. Kristy Duran. 2004. Associate Professor, Adams State College.

Dr. Catherine Driscoll. 2013.

Dr. Se Jin Song. 2013. Post doctoral fellow, University of Colorado and UC San Diego

Dr. Scott Ferrenberg. 2014. Assistant Professor, New Mexico State University

Masters Students

Joe Beckman, 1978

Steven Chischilly 1996

Lori Martin, 1999

Photographs appearing in print

Alpine Treeline Warming Experiment site on Niwot Ridge, Cover photo of Global Change Biology, June 2017 issue

Biocrust, Photo illustrating The Desert's Living Skin, July/August issue of Discover by Katherine Mast. 2017

Ballooning spider illustrating Unseen Life in the Sky, by Lynn Kimsey, Bohart Museum Society Newsletter 69 Winter 2017

Biocrust, illustrating Biological soil crusts: diminutive communities of global importance. 2017. *Frontiers in Ecology and the Environment* 15: 160 - 167., by S. Ferrenberg, C. L. Tucker and S. C. Reed.

Biocrust and Valley of the Gods, illustrating Biocrust ecology: unifying micro- and macro-scales to confront global change. *New Phytologist* 216: 463-646, by S. Ferrenberg and S. Reed. 2017

Two Photos of Niwot Ridge and the Indian Peaks Wilderness, illustrating An overview of research from a high elevation landscape: the Niwot Ridge, Colorado Long Term Ecological Research programme. 2015. M. W. Williams et al. 2016. *Plant ecology and Diversity*. <https://doi.org/10.1080/17550874.2015.1123320>

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Emerald Ash Borers illustrating Christie Sounart's Outdoors article on Vince Aquino, Coloradan Alumnus Magazine Fall 2015

Browns Canyon illustrating Christie Sounart's Outdoors article "Monument Man"

pp. 19-20, Coloradan Alumnus Magazine Summer 2015

Ancient limber pine illustrating article by Elizabeth Pennisi in Science, may 21, 2015

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Four photos of tree bark, illustrating Smooth bark can defend trees against insect attack: resurrecting a 'slippery hypothesis'. 2014, Functional Ecology 28: 837-845, by S. M. Ferrenberg and J. M. Mitton

Cover photo of mountain pine beetle for Issues in Ecology 18, 2013 "Climate Change and U.S. National Resources: Advancing the Nation's Capability to Adapt"

Cover photo of a canyon wren, March, 2013 Trends in Ecology and Evolution; Accompanies Wilkins, M. R., S. Seddon and R. J. Safran. Evolutionary divergence in acoustic signals: Causes and consequences. Trends in Ecology and Evolution 28 (3): 156-166.

40 Insect photos in Breed, M. D. and J. Moore. 2012. Animal Behavior. Academic Press.

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Cover Photo of a house sparrow, Journal of Evolutionary Biology. 2009. 22(12); Plus a photo of *Junco phaenotus* in accompanying article: Tibbetts, E. A. and R. J. Safran: Co-evolution of Plumage Characteristics and Winter Sociality in New and Old World Sparrows. 2009. Journal of Evolutionary Biology 22(12): 2376-2386. doi: 10.1111/j.1420-9101.2009.01861.x

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Over 340 photos accompanying Science columns entitled "Natural Selections" in the Boulder Daily Camera, April 2000 to present.