# **CURRICULUM VITAE: MARY V. PRICE**

Professor of Biology, Emerita
Department of Biology
University of California
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School of Natural Resources
University of Arizona
Tucson, AZ 85721

#### MARY.PRICE@UCR.EDU

#### ACADEMIC HISTORY

1971	A. B., Vassar College, Biology, cum laude
19/1	
1976	Ph.D., University of Arizona (with E. L. Cockrum)
1977	Postdoctoral, Dalhousie University (with E. C. Pielou)
1977-79	Instructor in Biology, University of Utah
1979-90	Assistant and Associate Professor, University of California, Riverside
1986	Sabbatical Leave, Duke University (with J. Antonovics)
1988	Visiting Professor, University of Wollongong, Australia (with R. Whelan)
1990-2004	Professor of Biology, UC Riverside
1993-94	Sabbatical leave, University of Sydney and Macquarie University, Australia
	(with C. R. Dickman, A. Beattie, M. Westoby)
2004-present	Professor of Biology Emerita, UC Riverside
2004-present	Adjunct Professor, School of Natural Resources and Environment, University of
	Arizona

### **PUBLICATIONS**

- 1977. Price, M. V. Validity of live trapping as a measure of foraging activity of heteromyid rodents. Journal of Mammalogy 58:107-110.
- 1978. Price, M. V. Seed dispersion preferences of coexisting desert rodent species. Journal of Mammalogy 59:624-626.
- 1978. Price, M. V. The role of microhabitat in structuring desert rodent communities. Ecology 59:910-921.
- 1979. Price, M. V. and N. M. Waser. Pollen dispersal and optimal outcrossing in *Delphinium nelsoni*. Nature 277-294-297.
- 1980. Price, M. V. On the significance of test form in benthic salt-marsh foraminifera. Journal of Foramiferal Research 10:129-135.
- 1981. Waser, N. M. and M. V. Price. Pollinator choice and stabilizing selection for flower color in *Delphinium nelsonii*. Evolution 35:376-390.
- 1981. Waser, N. M. and M. V. Price. Effects of grazing on diversity of annual plants in the Sonoran Desert. Oecologia 50:407-411.
- 1982. Price, M. V. and N. M. Waser. Population structure, frequency-dependent selection, and the maintenance of sexual reproduction. Evolution 36:35-43.

- 1982. Waser, N. M. and M. V. Price. A comparison of pollen and fluorescent dye carryover by natural pollinators of *Ipomopsis aggregata* (Polemoniaceae). Ecology 63:1168-1172.
- 1982. Waser, N. M., R. K. Vickery Jr., and M. V. Price. Patterns of seed dispersal and population differentiation in *Mimulus guttatus*. Evolution 36:753-761.
- 1982. Price, M. V. and N. M. Waser. Experimental studies of pollen carryover: hummingbirds and *Ipomopsis aggregata*. Oecologia 54:353-358.
- 1983. Waser, N. M. and M. V. Price. Pollinator behaviour and natural selection for flower colour in *Delphinium nelsonii*. Nature 302:422-424.
- 1983. Waser, N. M. and M. V. Price. Optimal and actual outcrossing inplants, and the nature of plant-pollinator interaction. Pp 341-359 *In* C. E. Jones and R. J. Little (eds) Handbook of Experimental Pollination Biology. Van Nostrand Reinhold, New York.
- 1983. Price, M. V. and J. H. Brown. Patterns of morphology and resource use in North American desert rodent communities. Great Basin Naturalist Memoirs 7:117-134.
- 1983. Price, M. V. Ecological consequences of body size: a model for patch choice in desert rodents. Oecologia 59:384-392.
- 1983. Price, M. V. Laboratory studies of seed size and species selection by heteromyid rodents. Oecologia 60:259-263.
- 1984. Price, M. V. and K. A. Kramer. On measuring microhabitat affinities with special reference to small mammals. Oikos 42:349-354.
- 1984. Price, M. V. and K. M. Heinz. Effects of body size, seed density, and soil characteristics on rates of seed harvest by heteromyid rodents. Oecologia 61:420-425.
- 1984. Price, M. V. Microhabitat use in rodent communities: predator avoidance or foraging economics? Netherlands Journal of Zoology 34:63-80.
- 1984. Price, M. V., N. M. Waser, and T. A. Bass. Effects of moonlight on microhabitat use by desert rodents. Journal of Mammalogy 65:353-356.
- 1984. Price, M. V. and N. M. Waser. On the relative abundance of species: post-fire changes in a coastal sage scrub rodent community. Ecology 65:1161-1169.
- 1984. Waser, N. M. and M. V. Price. Experimental studies of pollen carryover: effects of floral variability in *Ipomopsis aggregata*. Oecologia 62:262-268.
- 1985. Price, M. V. and N. M. Waser. Microhabitat use by heteromyid rodents: effects of artificial seed patches. Ecology 66:211-219.
- 1985. Waser, N. M. and M. V. Price. The effect of nectar guides on pollinator preference: experimental studies with a montane herb. Oecologia 67:121-126.
- 1985. Waser, N. M. and M. V. Price. Reciprocal transplant experiments with *Delphinium nelsonii* (Ranunculaceae): evidence for local adaptation. American Journal of Botany 72:1726-1732.
- 1986. Price, M. V. Introduction to the symposium: mechanistic approaches to the study of natural communities. American Zoologist 26:3-4.
- 1986. Price, M. V. Structure of desert rodent communities: a critical review of questions and approaches. American Zoologist 26:39-49.
- 1986. Thomson, J. D., M. V. Price, N. M. Waser, and D. A. Stratton. Comparative studies of pollen and fluorescent dye transport by bumble bees visiting *Erythronium grandiflorum*. Oecologia 69:561-566.
- 1986. Price, M. V. and S. H. Jenkins. Rodents as seed consumers and seed dispersers. Pp 191-235 *In* D. R. Murray (ed) Seed Dispersal. Academic Press, Sydney.

- 1987. Waser, N. M., M. V. Price, A. M. Montalvo, and R. N. Gray. Female mate choice in a perennial herbaceous wildflower, *Delphinium nelsonii*. Evolutionary Trends in Plants 1:29-33.
- 1987. Price, M. V., and O. J. Reichman. Distribution of seeds in Sonoran Desert soils: implications for heteromyid rodent foraging. Ecology 68:1797-1811.
- 1989. Price, M. V. and W. S. Longland. Use of artificial seed patches by heteromyid rodents. Journal of Mammalogy 70:316-322.
- 1989. Waser, N. M. and M. V. Price. Optimal outcrossing in *Ipomopsis aggregata*: seed set and offspring fitness. Evolution 43:1097-1109.
- 1989. Price, M. V. and P. R. Endo. Estimating the distribution and abundance of a cryptic species, *Dipodomys stephensi* (Rodentia: Heteromyidae), and implications for management. Conservation Biology 3:293-301.
- 1989. Lyons, E. E., N. M. Waser, M. V. Price, J. Antonovics, and A. F. Motten. Sources of variation in plant reproductive success and implications for concepts of sexual selection. American Naturalist 134:409-433.
- 1989. Price, M. V. and R. H. Podolsky. Mechanisms of seed harvest by heteromyid rodents: soil texture effects on harvest rate and seed size selection. Oecologia 81:267-273.
- 1990. Podolsky, R. H. and M. V. Price. Patch use by *Dipodomys deserti* (Rodentia: Heteromyidae): profitability, preference, and depletion dynamics. Oecologia 83:83-90.
- 1990. Waser, N. M., and M. V. Price. Pollination efficiency and effectiveness of bumble bees and hummingbirds visiting *Delphinium nelsonii*. Collectanea Botanica (Barcelona) 19:9-20.
- 1991. Waser, N. M. and M. V. Price. Outcrossing distance effects in *Delphinium nelsonii*: pollen loads, pollen tubes, and seed set. Ecology 72:171-179.
- 1991. Price, M. V., W. S. Longland, and R. L. Goldingay. Niche relationships of *Dipodomys agilis* and *D. stephensi*: two sympatric kangaroo rats of similar size. American Midland Naturalist 126:172-186.
- 1991. Waser, N. M. and M. V. Price. Reproductive costs of self-pollination in *Ipomopsis aggregata*: are ovules usurped? American Journal of Botany 78:1036-1043.
- 1991. Campbell, D. R., N. M. Waser, M. V. Price, E. A. Lynch, and R. J. Mitchell. Components of phenotypic selection: pollen export and flower corolla width in *Ipomopsis aggregata*. Evolution 45:1458-1467.
- 1991. Longland, W. S. and M. V. Price. Direct observations of owls and heteromyid rodents: can predation risk explain microhabitat use? Ecology 72:2261-2273.
- 1992. de Jong, T., N. M. Waser, M. V. Price, and R. M. Ring. Plant size, geitonogamy, and seed set in *Ipomopsis aggregata*. Oecologia 89:310-315.
- 1992. Waser, N. M., M. V. Price, and R. I. Bertin. Cross-pollination. Nature 356:667-668 (scientific correspondence).
- 1992. Waser, N. M., M. V. Price, and R. K. Grosberg. Writing an effective manuscript review. BioScience 42:621-623.
- (*The above paper reprinted with minor revisions in Plant Science Bulletin 40:38-41, 1994 and in the* American Society of Horticultural Science Newsletter 10:4-5, 1994))
- 1992. Price, M. V., P. A. Kelly, and R. L. Goldingay. Distinguishing the endangered Stephens' Kangaroo Rat (*Dipodomys stephensi*) from the Pacific Kangaroo Rat (*Dipodomys agilis*). Bulletin of the Southern California Academy of Sciences 91:126-136.
- 1992. Morgan, K. R. and M. V. Price. Foraging in heteromyid rodents: the energy cost of scratch-digging. Ecology 73:2260-2272.

- 1993. Price, M. V. Involving academics in endangered-species conservation: lessons from the Stephens' kangaroo rat habitat conservation plan. Pp. 21-25 *In* J. E. Keeley (ed) Interface Between Ecology and Land Development in California. Southern California Academy of Sciences, Los Angeles.
- 1993. Reichman, O. J. and M. V. Price. Ecological aspects of heteromyid foraging. Pp 539-574 *In* Genoways, H. H. and Brown, J. H. (eds) Biology of the Family Heteromyidae. Special Publication No. 10 of the American Society of Mammalogists, Shippensburg, Pennsylvania, 719 pp.
- 1993. Waser, N. M. and M. V. Price. Specialisation and generalisation in pollination systems. Pp. 165-169 *In* Veeresh, G. K., R. U. Shaanker and K. N. Ganeshaiah (eds) Pollination in Tropics. IUSSN, Bangalore, India.
- 1993. Waser, N. M. and M. V. Price. Crossing distance effects on prezygotic performance in plants: an argument for female choice. Oikos 68:303-308.
- 1994. Price, M. V., R. L. Goldingay, L. S. Szychowski, and N. M. Waser. Managing habitat for Stephens' Kangaroo Rat (*Dipodomys stephensi*): effects of shrub removal. American Midland Naturalist 131:9-16.
- 1993. Price, M. V. A functional-morphometric analysis of forelimbs in bipedal and quadrupedal heteromyid rodents. Biological Journal of the Linnean Society 50:339-360.
- 1994. Campbell, D. R., N. M. Waser, and M. V. Price. Indirect selection of stigma position in *Ipomopsis aggregata* via a genetically correlated trait. Evolution 48:55-68.
- 1994. Waser, N. M. and M. V. Price. Crossing distance effects in *Delphinium nelsonii*: outbreeding and inbreeding depression in progeny fitness. Evolution 48:842-852.
- 1994. Price, M. V. and P. A. Kelly. An age-structured demographic model for the endangered Stephens' kangaroo rat. Conservation Biology 8:810-821.
- 1994. Price, M. V., P. A. Kelly, and R. L. Goldingay. Distances moved by Stephens' kangaroo rat (*Dipodomys stephensi* Merriam), and implications for conservation. Journal of Mammalogy 75:929-939.
- 1994. Morris, W. F., M. V. Price, N. M. Waser, J. D. Thomson, B. Thomson, and D. Stratton. Systematic increase in pollen carryover and its consequences for outcrossing in plant populations. Oikos 71:431-440.
- 1994. Waser, N. M., R. G. Shaw, and M. V. Price. Seed set and seed mass in *Ipomopsis aggregata*: variance partitioning and inferences about post-pollination selection. Evolution 49:80-88.
- 1995. Bleich, V. C. and M. V. Price. Aggressive behavior of *Dipodomys stephensi*, an endangered species, and *Dipodomys agilis*, a sympatric congener. Journal of Mammalogy 76:646-651.
- 1995. Price, M. V., N. M. Waser. K. E. Taylor, and K. L. Pluff. Fire as a management tool for Stephens' kangaroo rat and other small mammal species. *In* Brushfires in California Wildlands: Ecology and Resource Management, eds. J. E. Keeley and T. Scott, International Association of Wildland Fire, Fairfield, WA, pp. 51-61.
- 1996. Waser, N. M., L. Chittka, M. V. Price, N. Williams, and J. Ollerton. Generalization in pollination systems, and why it matters. Ecology 77:1043-1060.
- 1996. Campbell, D. R., N. M Waser, and M. V. Price. Mechanisms of hummingbird-mediated selection for flower width in *Ipomopsis aggregata*. Ecology 77:1463-1472.
- 1996. Price, M. V. and M. Gilpin. Modellers, mammalogists, and metapopulations: designing Stephens' kangaroo rat reserves. In: D. R. McCullough (ed.), Metapopulations and Wildlife Conservation and Management. Island Press, Washington DC, pp. 217-240.

- 1997. Price, M. V. and J. W. Joyner. What resources are available to desert granivores: seed rain or soil seed bank? Ecology 78:764-773.
- 1997. Goldingay, R. L. and M. V. Price. Influence of season and a sympatric congener on habitat use by Stephens' kangaroo rat. Conservation Biology 11:708-717.
- 1998. Price, M. V. and N. M. Waser. Effects of experimental warming on plant reproductive phenology in a subalpine meadow. Ecology 79:1261-1271.
- 1998. Waser, N. M. and M. V. Price. What plant ecologists can learn from zoology. Perspectives in Plant Ecology, Evolution and Systematics 1:137-150.
- 1999. Price, M. V. *Perognathus amplus*. Pp. 495-496 In: D. E. Wilson and S. Ruff (eds.) The Smithsonian Book of North American mammals. Smithsonian Institution Press, Washington, D. C., 750 pp.
- 1999. Price, M. V. *Chaetodipus baileyi*. Pp. 507-508 In: D. E. Wilson and S. Ruff (eds.) The Smithsonian Book of North American mammals. Smithsonian Institution Press, Washington, D. C., 750 pp.
- 1999. Price, M. V. *Chaetodipus penicillatus*. Pp. 516-517. In: D. E. Wilson and S. Ruff (eds.) The Smithsonian Book of North American mammals. Smithsonian Institution Press, Washington, D. C., 750 pp.
- 2000. Price, M. V., N. M. Waser, and S. McDonald. Seed caching by heteromyid rodents from two communities: Implications for coexistence. Journal of Mammalogy 81:97-106.
- 2000. Price, M. V. and R. A. Cardullo. UC must take lead in curricula reform, teacher training. California Agriculture 54(1):54-62.
- 2000. Chase, M. K., W. B. Kristan III, A. J. Lynam, M. V. Price, and J. T. Rotenberry. Single species as indicators of species richness and composition in California coastal sage scrub bird and small mammal communities. Conservation Biology 14:474-487.
- 2000. Waser, N. M., M. V. Price, and R. G. Shaw. Outbreeding depression varies among cohorts of *Ipomopsis aggregata* planted in nature. Evolution 54:485-491.
- 2000. Price, M. V. and N. M. Waser. Responses of subalpine meadow vegetation to four years of experimental warming. Ecological Applications 10:811-823.
- 2000. Price, M. V., N. M. Waser, and S. A. McDonald. Elevational distributions of kangaroo rats: long-term trends at a Mojave Desert site. American Midland Naturalist 144:352-361.
- 2001. Price, M. V. and N. M. Waser. Global warming and terrestrial ecosystems. Letters. BioScience 51: 332.
- 2001. Price, M. V. and R. A. Correll. Depletion of seed patches by Merriam's kangaroo rats: are GUD assumptions met? Ecology Letters 4:334-343.
- 2001. Mayfield, M. M., N. M. Waser, and M. V. Price. Exploring the "most effective pollinator principle" with complex flowers: bumblebees and *Ipomopsis aggregata*. Annals of Botany 88:591-596.
- 2002. Housman, D. C., M. V. Price, and R. A. Redak. Architecture of coastal and desert *Encelia farinosa* (Asteraceae): consequences of plastic and heritable variation in leaf characters. American Journal of Botany 90:1303-1310.
- 2003. Kristan, W. B. III, A. J. Lynam, M. V. Price, and J. T. Rotenberry. Alternative causes of edge-abundance in birds and small mammals of California coastal sage scrub. Ecography 26:29-4.
- 2003. Saavedra, F., D. W. Inouye, M. V. Price, and J. Harte. Changes in flowering and abundance of Delphinium nuttallianum (Ranunculaceae) in response to a subalpine climate warming experiment. Global Change Biology 9:885-894.

- 2003. Price, M. V. and J. Mittler. Seed-cache exchange promotes coexistence and coupled consumer oscillations: a model of desert rodents as resource processors. Journal of Theoretical Biology 223:215-231.
- 2004. Sharaf, K. E. and M. V. Price. Does pollination limit tolerance to browsing in *Ipomopsis aggregata?* Oecologia 138:396-404.
- 2004. Memmott, J., N. M. Waser, and M. V. Price. Tolerance of pollination networks to species extinctions. Proceedings of the Royal Society London B 271:2605-2611.
- 2005. Price, M. V., N. M. Waser, R. E. Irwin, D. R. Campbell, and A. K. Brody. Temporal and spatial variation in pollination of a montane herb: a seven-year study. Ecology 86:2106-2116.
- 2006. Sage, T. L., M. V. Price, and N. M. Waser. Self-sterility in *Ipomopsis aggregata* (Polemoniaceae) is due to pre-zygotic ovule degeneration. American Journal of Botany 93:254-262.
- 2006. Price, M. V. and J. E. Mittler. Cachers, scavengers and thieves: conditions for coexistence of desert rodents. The American Naturalist 168:194-206.
- 2007. Memmott, J., P. G. Craze, N. M. Waser and M. V. Price. Global warming and the disruption of plant-pollinator interactions. Ecology Letters 10:710-717.
- 2007. Brody, A. K., M. V. Price, and N. M. Waser. Life history consequences of vegetative damage in scarlet gilia, a monocarpic plant. Oikos 116:975-985.
- 2008. Price, M. V., D. R. Campbell, N. M. Waser, and A. K. Brody. Bridging the generation gap in plants: from parental fecundity to offspring demography. Ecology 89:1596-1604.
- 2009. Jeff Ollerton, Ruben Alarcon, Nickolas M. Waser, Mary V. Price, Stella Watts, Louise Cranmer, Andrew Hingston, Craig I. Peter, and John Rotenberry. A global test of the pollination syndrome hypothesis. Annals of Botany 2009; doi: 10.1093/aob/mcp031
- 2010. Waser, Nickolas M., Mary V. Price, and the TBA Pollination Consortium. A preliminary early-season pollination web for the Kirindy Forest, Madagascar. Journal of Pollination Ecology 2(1):1-6.
- 2010. Waser, Nickolas M., Diane R. Campbell, Mary V. Price, and Alison K. Brody. Density-dependent demographic responses of a semelparous plant to natural variation in seed rain. Oikos 119:1929-1935. doi 10.1111/j.1600-0706.2010.18429.x

### **BOOKS**

2010. Billick, Ian, and Mary V. Price (eds). The Ecology of Place: Contributions of Place-Based Research to Ecological and Evolutionary Understanding. University of Chicago Press, 464 pp..

Coauthored Chapters in The Ecology of Place:

Mary Price. and Ian Billick. The Ecology of Place. Chapter 1.

Mary Price and Ian Billick. Section 1: Introductory Remarks.

Ian Billick and Mary Price. Section 2: <u>Introductory Remarks</u>.

Mary Price and Ian Billick. Section 3: Introductory Remarks.

Mary Price and Ian Billick. Section 4: Introductory Remarks.

Ian Billick and Mary Price. Section 5: Introductory Remarks.

Mary Price and Ian Billick. <u>Concluding Remarks: Taking Advantage of the</u> Power of Place. Chapter 19.

2012. Hillis, David M., David Sadava, H. Craig Heller, and Mary V. Price. Principles of Life. Sinauer Associates, Inc., Sunderland, MA. 909 pp.

## POPULAR—NOT REFEREED

2007. Price, M. V., and N. M. Waser. Where rivers run dry or ten feet high: Variation and predictability matter more than averages for desert ecosystems. Arid Lands Newsletter, Issue 59, Office of Arid Land Studies, The University of Arizona (http://ag.arizona.edu/OALS/ALN/aln59/aln59toc.html).

#### **BOOK REVIEWS**

- 1989. Price, M. V. Plant-animal interactions: exciting but neglected topic. Review of Howe, F. and L. C. Westley, 1988, *Ecological Relationships of Plants and Animals*, Oxford Univ. Press, NY. Evolution 43:920-921.
- 1992. Price, M. V., and N. M. Waser. Evolutionary ecology by example. Review of Cockburn, A. 1991. *An Introduction to Evolutionary Ecology*. Ecology 73:2334-2335.
- 1995. Waser, M. V., and M. V. Price. Demystifying ecological theory. Review of Gotelli, N. J. 1995. *A primer of ecology*. Sinauer Associates, Inc., Sunderland, Massachusetts. Ecology 77:657-658.
- 1998. Price, M. V. Structured-population models made accessible. Review of Tuljapurkar, S. and H. Caswell (eds). 1997. *Structured-population models in marine, terrestrial, and freshwater systems*. Chapman & Hall, New York, New York. Ecology 79:1475.
- 2001. Price, M. V. Desert Ecology: Hooking Students on Nature. Review of Sowell, John. 2001. *Desert ecology: an introduction to life in the arid southwest.* Ecology 83:298-299.
- 2011. Price, M. V. and N. M. Waser. Breaking Trail in Ecology. Review of Langenheim, Jean H. 2010. The *Odyssey of a Woman Field Scientist—A Story of Passion, Persistence, and Patience*. Quarterly Review of Biology, in press.

#### PAPERS GIVEN AT MEETINGS

AAAS Regional 1976 (1 paper)

American Society of Zoologists 1977, 1983 (1 contributed, 1 symposium paper)

Ecological Society of America 1977-2005 (22 contributed, 3 symposium papers)

Society for the Study of Evolution 1978, 1984 (2 contributed papers)

American Society of Mammalogists 1982 (1 contributed, 1 symposium paper) and 1992 (1 contributed paper)

Animal Behavior Society 1989 (1 symposium paper, coauthored)

Scandinavian Pollination Ecologists 1991, Uppsala, Sweden (1 symposium paper)

Guild of Rocky Mountain Population Biologists 1992, 1996, 1998, 2000 (4 contributed papers, 1 keynote address)

The Wildlife Society 1994 (1 symposium paper)

German Ecological Society, Plant Population Ecology 1997 (1 symposium paper)

1999 Mojave Desert Science Symposium, Las Vegas (1 poster)

1999 Desert Tortoise Symposium, St. George, UT (1 invited paper)

2007 Symposium on "Plant Reproductive Systems", Plant Science Center, ETH (Swiss Federal Institute of Technology), Zürich, Switzerland

2009 Ecological Society of America annual meeting: 1 symposium paper

# PROFESSIONAL ACTIVITIES

Manuscript and Grant Reviews: >300 for > 45 journals and >15 granting agencies.

- Editorships: 1989-1992, Associate Editor, *Ecology, Ecological Monographs*. 1994-1996, Associate Editor, *Evolution*. 1997-2002, Associate Editor, *Oecologia*.
- Service to Rocky Mountain Biological Laboratory: 1981-85, 1987-1996, 2008-2009--Trustee of the Corporation; 1984--Master Plan Coordinator; 1989-1990, 2000-2001--Vice President; 1988-1993, 2010-present--Animal Welfare Committee; 1998-1999--Chair, Research Committee; 2004-2007--Chair, Research Policy Committee; 2008-2009 -- President.
- 1983. Organizer, ASZ- and NSF-sponsored symposium, ASZ annual meeting, Philadelphia: "Mechanistic approaches to the study of natural communities."
- 1984. Member, Nominating Committee, Ecological Society of America.
- June 1988. Visiting Distinguished Ecologist, Kellogg Biological Station, Michigan State University.
- 1988-1990. Member, Stephens' Kangaroo Rat Technical Advisory Committee, Riverside County, CA.
- 1990,1995,1997. External thesis examiner, Macquarie University
- 1994. Member, Sewall Wright Award Committee, Society for the Study of Evolution.
- 1995. Invited participant in Los Angeles press briefing on scientific basis for the Endangered Species Act organized by Sierra Club Legal Defense Fund
- 1997-1998. NSF Population Biology panel (2 panels)
- 1997-98. Member of "Associated Scientists" group contributing to revision of California State science standards for grades K-12
- 1999. Mercer Award Committee of the Ecological Society of America
- 2000. Chair, nominating committee, Western Chapter of the Ecological Society of America
- 2000-01. Mercer Award Committee of the Ecological Society of America
- 2002. Organizer, with Rosemary Smith, Symposium for Ecological Society of America's Annual Meeting: "Species interactions in desert communities: dynamics of resource supply and utilization."
- 2006. U. S. Environmental Protection Agency "STAR" Fellowship awards panel, Washington DC.
- 2009. Organizer, with Ian Billick, Symposium for Ecological Society of America's Annual Meeting: "The Ecology of Place."

#### RESEARCH GRANTS AND CONTRACTS

- NSF Doctoral Dissertation Improvement Grant, 1972
- NSF DEB 80-22164 "Resource partitioning by coexisting desert rodent species", 1981-84, PI (with O. J. Reichman) (\$125,000)
- NSF BSR 83-14125 "Mechanistic approaches to the study of natural communities: a symposium" 1983 (\$5,000)
- NSF BSR 84-07602 "Experimental Studies of heteromyid rodent microhabitat affinities" 1984-1988 (\$159,000)
- Riverside County Board of Supervisors contract for demographic and habitat-use research for Stephens' Kangaroo Rat Habitat Conservation Plan, 1989-1992 (\$213,000)
- NSF BSR 89-05808 "Mating success in montane wildflowers: postpollination mechanisms and relative fitness contribution of differential outcrossing distance," 1989-1994, co-PI with N. Waser and R. Shaw (\$160,000)
- NSF BSR 89-15519 "Minorities Graduate Research Award for Rhoda Ascanio", 1989-90 (\$4,000)

- California Parks and Recreation Department "Stephens' Kangaroo Rat habitat restoration at Lake Perris State Recreation Area", 1990-1992 (\$8,000)
- NSF DEB 92-07588 "Impacts of impending climate warming on a subalpine ecosystem", 1992-1995, co-PI with J.Harte and N. Waser (\$82,000 subcontract)
- California Department of Fish and Game "Autecological studies of sensitive coastal sage scrub target birds and small mammals", 1995, co-PI with J. Rotenberry (\$85,000)
- NBS "Autecological studies of sensitive coastal sage scrub birds and small mammals: regional distributions and local edge effects", 1995-1997, co-PI with J. Rotenberry (\$238,809)
- USDI/NBS "Alien annual grass distribution, abundance, and impact on desert tortoise habitat in the western Mojave desert", 1995-1998, co-PI with K. Berry and M. Brooks (\$157,748)
- NSF DEB 9805034 "Pollination, plant fitness and population dynamics: how strong are the links", 1998-2003, PI (with A. Brody, N. Waser, D. Campbell; \$200,000)
- Shipley-Skinner Endowment Award. "The relationship between food availability and reproduction in kangaroo rats (Dipodomys)", 1999-2001, co-PI with Yvonne Moore (\$10,000)

## **TEACHING**

Formal Classes

University of Arizona (Teaching assistant) -- Mammalogy, Plant Ecology, Field Ecology, General Biology

University of Utah -- non-majors' Human Ecology, graduate Field Ecology

Rocky Mountain Biological Laboratory -- undergraduate Field Ecology and other courses including high school classes

Organization for Tropical Studies -- graduate Tropical Biology field course, 1981

University of California, Riverside -- non-majors' and majors' General Biology; upper-division undergraduate Population and Community Ecology; graduate seminars in Population and Community Ecology, Evolution, Behavioral Ecology; graduate and undergraduate Field Ecology.

Tropical Biology Association – graduate Field Course in Tropical Ecology: Uganda 2001, Madagascar 2009, Tanzania 2012.

Student Advising-U.C. Riverside

- Undergraduate Independent Research: Katie Kramer\*, Narca Moore-Craig, Laura Snyder, Wendy Rehlaender, Patty Endo\*, Robert Podolsky\*, Chris Camarena, Heather Callahan, Shannan Szychowski\*, Jamie Joyner\*, Matt Buffington, Hylton Mayer, Natasha Thorne, Kate Sharaf\*, Rachel Correll\*, Sandra Arozqueta, Betsabé Castro Escobar, Alessandra Pistoia, Evelyn Strombom (\* = papers co-authored)
- Thesis Committee Member: Kathy Brooks (MA, 1988), Kevin Ellison (MA, 1998), Michael Misenhelter (MA, 1998), Louise-Marie Dandurand (PhD, Plant Pathology, 1990), Ian Billick (PhD, UCSD, 1997), Francisca Saavedra (PhD, U. Maryland, 2000), William Kristan III (PhD, 2001) Sharon Coe (MS, 2002), Farrah Bashey (PhD, 2002)
- Major Advisor: Kevin Heinz, "Species Replacement along elevational gradients" (MA, 1983); William Longland, "Risk of predation and heteromyid rodent community structure" (PhD, 1989); Kim Taylor, "Fire as a tool for managing Stephens' Kangaroo Rat habitat" (MA, 1994); Matt Brooks, "Interactions between exotic weeds and native ephemeral plants in the Mojave Desert" (PhD,1998); Dave Housman, "Ecotypic variation in *Encelia farinosa*" (MA, 1998), Yvonne Moore, "Effects of Seed Supplementation on Populations of the Dulzura Kangaroo Rat, *Dipodomys simulans*" (MA 2003)

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