

BIOGRAPHICAL SKETCH

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EDUCATION:

June 1968	A. B.	Dartmouth College Mentor, F. H. Bormann
July 1974	Ph. D.	U.C. Berkeley, Major Professor, R. B. Park
January 1974 - August 1975		Carnegie Institution of Washington, Department of Plant Biology, Stanford, CA, Post-Doctoral Research with O. Björkman
January 1982-August 1982		UCLA, Los Angeles, CA, Sabbatical Leave Research with P. S. Nobel

ACADEMIC APPOINTMENTS:

1975-1982	Assistant Professor	University of California, Santa Barbara
1982-1992	Associate Professor	University of California, Santa Barbara
1992-present	Professor	University of California, Santa Barbara

PUBLICATIONS :

Björkman, O., B. E. Mahall, M. Nobs, W. Ward, F. Nicholson, and H. Mooney.
1974. An analysis of the temperature
dependence of growth under controlled conditions. Carnegie Institution
of Washington Year Book 73:
757-767.

Card, K. A., B. Mahall, and J. H. Troughton. 1974. Salinity and carbon

- isotope ratios in C3 and C4 plants. Carnegie Institution of Washington Year Book 73:784-785.
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- Mahall, B. E. and R. B. Park. 1976. The ecotone between *Spartina folisa* Trin. and *Salicornia virginica* L. in salt marshes of northern San Francisco Bay. II. Soil, water and salinity. Journal of Ecology 46: 798-809.
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- Mahall, B. E. 1976. The possible use of hollow fiber hemodialysers in soil-plant water relations research. Carnegie Institution of Washington Year Book 75:438-440.
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- Fonteyn, P. J. and B. E. Mahall. 1978. Competition among desert perennials. Nature 875: 544-545.
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- Holmes, R. W. and B. E. Mahall. 1982. Preliminary observations on the effects of flooding and dessication upon the net photosynthetic rates of high intertidal estuarine sediments. Limnology and Oceanography 27:954-958.

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- Thomson, V. E. and B. E. Mahall. 1983. Host specificity by a mistletoe, *Phoradendron villosum* (Nutt.) Nott. subsp. *villosum*, on three oak species in California. Botanical Gazette 144: 124-131.
- Robberecht, R., B. E. Mahall, and P. S. Nobel. 1983. Experimental removal of intraspecific competitors—effects on water relations and productivity of a desert bunchgrass, *Hilaria rigida*. Oecologia 60: 21-24.
- Comstock, J. P. and B. E. Mahall. 1985. Drought and changes in leaf orientation for two California chaparral shrubs: *Ceanothus megacarpus* and *Ceanothus crassifolius*. Oecologia 65: 531-535.
- Gill, D. S. and B. E. Mahall. 1986. Quantitative phenology and water relations of an evergreen and a deciduous shrub species at a common chaparral site. Ecological Monographs 56: 127-143.
- Mahall, B. E. and C. S. Wilson. 1986. Environmental induction and physiological consequences of natural pruning in the chaparral shrub *Ceanothus megacarpus*. Botanical Gazette 147: 102-109.
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- Callaway, R. M., N. M. Nadkarni, and B. E. Mahall. 1991. Blue oaks and pasture productivity. Is there a relationship? Fremontia 18: 42-43.
- Callaway, R. M., N. M. Nadkarni, and B. E. Mahall. 1991. Facilitating and interfering effects of *Quercus douglasii* in central California. Ecology 72: 1484-1499.
- D'Antonio, C. M. and B. E. Mahall. 1991. Root profiles and competition between the invasive, exotic perennial, *Carpobrotus edulis*, and two native shrub species in California coastal scrub. American Journal of Botany 78: 885-894
- Mahall, B. E. and R. M. Callaway. 1991. Root communication among desert shrubs. Proceedings of the National Academy of Sciences 88: 874-876.
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- Callaway, R. M. and B. E. Mahall. 1996. Variation in leaf structure and function in *Quercus douglasii* trees differing in root architecture and drought history. *International Journal of Plant Science* 157: 129-135
- Mahall, B. E. 1998. Inter-root communications and the structure of desert plant communities. In: H. E. Flores, J. P. Lynch, D. Eissenstat, eds. *Radical Biology: Advances and Perspectives on the Function of Plant Roots*. American Society of Plant Physiologists, Rockville Maryland, pp 265-280.
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- Holzappel, C. and B. E. Mahall. 1999. Bidirectional facilitation and interference between shrubs and annuals in the Mojave Desert. *Ecology* 80:1747-1761.
- Hamilton, J. G., C. Holzappel, and B. E. Mahall. 1999. Coexistence and interference between a native perennial grass and non-native annual grasses in California. *Oecologia*, 121: 518-526.
- Callaway, R. M., B. Newingham, C. A. Zabinski, and B. E. Mahall. 2001. Compensatory growth and competitive ability of an invasive weed are enhanced by soil fungi and native neighbors. *Ecology Letters* 4: 429-433.
- Schenk, H. J. and B. E. Mahall. 2002. Positive and negative plant interactions contribute to a north-south-patterned association between two desert shrub species. *Oecologia* 132: 402-410.
- Callaway, R. M., B. E. Mahall, C. Wicks, J. Pankey, and C. Zabinski. 2003. Soil fungi and the effects of an invasive forb on native versus naturalized grasses: neighbor identity matters. *Ecology* 84: 129-135.
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- Schlesinger, W. H., J. S. Pippen, M. D. Wallenstein, K. S. Hofmockel, D. M. Klepeis, and B. E. Mahall. 2003. Community composition and

photosynthesis by photoautotrophs under quartz pebbles, southern Mojave Desert. Ecology 84: 3222-3231.

Callaway, R. M., J. Kim, B. E. Mahall. 2006. Defoliation of *Centaurea solstitialis* stimulates compensatory growth and intensifies negative effects on neighbors. Biological Invasions.

Cole, E. Shelly and B. E. Mahall. A test for hydrotropic behavior by roots of two coastal dune shrubs. New Phytologist 172: 358-368.

Thwing, L.K. and B. E. Mahall. A quantitative comparison of two extremes in chaparral shrub phenology. Submitted to American Journal of Botany.

GRADUATE STUDENTS AND POSTDOCTORAL SCHOLARS SUPERVISED:

Richard Ownbey (MA, 1976)
Richard Hobbs (MA, 1977)
Paul Fonteyn (PhD, 1978)
Mary Carroll (MA, 1980)
Vivian Thomson (MA, 1982)
David Gill (MA, 1985)
Steven Junak (MA 1987)
Ronilee Clark (MA, 1989)
Ragan Callaway (PhD, 1990, postdoc, 1991-1992)
Carla D'Antonio (PhD, 1990)
Beth Hendrickson (MA, 1990)
Lucy St. Omer (postdoc, 1991-92)
Jason Hamilton (PhD, 1997, postdoc, 1998)
Jochen Schenk (PhD, 1998)
Claus Holzapfel, (postdoc, 1994-98)
Claudia Tyler (postdoc, 1996-current)
Catarina Mata (postdoc, 2000-2001)
Lisa Thwing (PhD, 2003)
Shelly Cole (PhD, 2005, postdoc, 2005-current)
Erin O'Brien (postdoc, 2004-current)