**V. THOMAS PARKER – CURRICULUM VITAE**

Professor of Biology San Francisco State University

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**EDUCATION**

Ph.D. University of California, Santa Barbara, USA, 1977 (Ecology)

M.A. University of California, Santa Barbara, USA, 1975 (Ecology)

B.A. University of Texas, Austin, USA, 1973 (Biology) (Cum Laude, Phi Beta Kappa)

**PROFESSIONAL EXPERIENCE**

1980- Full (1987-present), Associate (1984-87), and Assistant Professor (1980-84), Department of Biology, San Francisco State University, San Francisco, CA, USA; Director, Sierra Nevada Field Station, (1980-85); Acting Chair, Department of Biology (1998-99)

1977-1980 Assistant Professor, Biology Department, Rider College, Lawrenceville, NJ, USA

1976-1977 Regent's Fellow, University of California, USA

**RESEARCH INTERESTS**

Community ecology: dispersal, seed banks, seedling establishment and recruitment; mycorrhizal ecology and vegetation dynamics; restoration ecology and vegetation management of wetlands and chaparral; conservation biology, systematics and evolution of *Arctostaphylos* (Ericaceae) and *Ceanothus* (Rhamnaceae).

**PUBLICATIONS**

**Books**

*A Field Guide to Manzanitas.* 2015*.*  M Kauffmann, VT Parker, MC Vasey with J Bisbee (photographer). Backcountry Press, Kneeland,CA, 170 pp.

*Seedling Ecology and Evolution.* 2008. MA Leck, VT Parker, RL Simpson (eds.). Cambridge University Press, Cambridge & New York.

*Ecological Scale: Theory and Applications*. 1998. D Peterson and VT Parker (eds.) Complexity in Ecological Systems series. Columbia University Press, NY.

*Ecology of Soil Seed Banks*. 1989. MA Leck, VT Parker, RL Simpson (eds). Academic Press, San Diego.

**Peer-reviewed journal articles and book chapters**:

**In review**

Parker VT. *In review*. Snow damage at small scales impacts ecological function. Plant Ecology & Diversity.

Burge DO,VT Parker, M Mulligan, C García. *In 2nd review*. Conservation genetics of the endangered Del Mar manzanita (*Arctostaphylos glandulosa* subsp. *crassifolia*) based upon rad sequencing data. Madroño.

Wrubel E, VT Parker. *In review*. Vascular plant diversity along salt exposure and water availability gradients in coastal California. Ecology & Evolution.

**2010-present** (39)

Parker VT, Boyer K. *In press*. Sea-level rise and climate change impacts on an urbanized Pacific Coast Estuary. Wetlands. (early online at journal home website).

Keeley JE, Parker VT, Vasey MC. 2017. Characters in *Arctostaphylos* (Ericaceae). Madroño 64: 138-153*.*

Simpson AG, KA Schierenbeck, VT Parker, C Ivey. 2017. Not all plant taxa display typical latitude-propagule size gradients: a case study in *Arctostaphylos* (Ericaceae). Madroño 64: 83-91.

Parker VT, JB Pratt, JE Keeley. 2017. Chaparral, Threats and Responses, pp. 35-36. In: HA Mooney and E Zavaleta (eds.) Ecosystems of California – Threats and Responses, Supplment for Decision-Making. University of California Press, Berkeley.

Parker, VT, MC Vasey.2016*.* Two newly described subspecies of *Arctostaphylos* (Ericaceae) and implications for understanding diversification in this genus. Madroño 63(3): 283-291.

Keeley, JE, VT Parker, MC Vasey. 2016. Resprouting and seeding hypotheses: A test of the gap-dependent model using resprouting and obligate seeding subspecies of *Arctostaphylos*. Plant Ecology 217: 743-750.

Peterson, NB, VT Parker. 2016. Scatter-hoarding increases seed survival even at soil depths with killing heat pulse. Ecology and Evolution, doi:10.1002/ece3.2156.

Parker VT, MC Vasey. 2015*.* Two newly described subspecies of *Arctostaphylos* (Ericaceae) and implications for understanding diversification in this genus. Madroño 63(3): 283-291.

Parker VT 2015. Seed bank divergence between *Arctostaphylos* Adans. (Ericaceae) and *Ceanothus* L. (Rhamnaceae) suggests different seed predator interactions. Ecologia Mediterranea 41(2): 5-13.

Parker VT 2015. Large-scale disturbances transform dispersal mutualism into fire adaptation. PLoS ONE 10(7): e0132625. doi: 10.1371/journal.pone.0132625

Parker, V.T. 2015. Soil seed banks. Encyclopedia Brittanica. <http://www.britannica.com/EBchecked/topic/2022981/soil-seed-bank>

Parker, V.T., J.B. Pratt, J.E. Keeley. 2015. Chaparral, pp. 479-507. In: H. A. Mooney and E. Zavaleta (eds.) Ecosystems of California – A Source Book. University of California Press, Berkeley.

Parker, V.T. 2014. A newly described serpentine-endemic *Ceanothus* (Rhamnaceae) in coastal Marin County, California. Madroño 61: 399-406.

Schile LM, Callaway JC, Morris JT, Stralberg D, Parker VT, et al. 2014. Modeling Tidal Marsh Distribution with Sea-Level Rise: Evaluating the Role of Vegetation, Sediment, and Upland Habitat in Marsh Resiliency. PLoS ONE 9(2): e88760. doi:10.1371/journal.pone.0088760

Lamperti, A., A. French, E. Dierenfeld, M. Fogiel, K. Whitney, D. Stauffer, K. Holbrook, D. Hardesty, C. Clark, J. Poulsen, B. Wang, T.B. Smith, V.T. Parker. 2014. Diet selection is related to breeding status in two frugivorous hornbills of Central Africa. J. Tropical Ecology 30: 273-290.

Warzecha, B. and V.T. Parker. 2014. Differential post-dispersal seed predation drives chaparral seed bank dynamics. Plant Ecology 215: 1313-1322.

Vasey, M.C., V.T. Parker, K.D. Holl, M.E. Loik and S.Hiatt. 2014. Maritime climate influence on chaparral composition and diversity in the coast range of central California. Ecology and Evolution 4(18): 3662–3674.

Vasey, M.C. and V.T Parker. 2014. Drivers of diversity in woody plant lineages experiencing canopy fire regimes in Mediterranean type climates, pp. 179-200. In: Rajakaruna, N., R.S. Boyd, and T. B. Harris (eds.) Plant ecology and evolution in harsh environments. Nova Publishers.

Vasey, M.C. and V.T. Parker. 2013. Two champions of California botany: The California Botanical Society and the California Native Plant Society. Fremontia 40: 7-10. (editor-reviewed)

Vasey, M.C., M. E. Loik, and V. T. Parker. 2012. Influence of summer marine fog and low cloud stratus on water relations of evergreen woody shrubs (*Arctostaphylos*: Ericaceae) in the chaparral of central California. Oecologia 170:325–337.

Vasey, M.C., V.T. Parker, L.M. Schile, J.C. Callaway & E.R. Herbert. 2012. Vegetation of the tidal wetlands in SF Bay-Delta. San Francisco Estuary and Watershed Science 10(2). <http://escholarship.org/uc/item/44z5v7xf>

Parker, V.T., J.C. Callaway, L.M. Schile, M.C. Vasey & E. Herbert. 2012. Tidal marshes in the context of climate change. In: Tidal Salt Marshes of the San Francisco Bay Estuary: ecology, restoration, preservation, pp. 87-94. A. Palaima (ed.) University of California Press, Berkeley.

Parker, V.T., J.C. Callaway, L.M. Schile, M.C. Vasey & E. Herbert. 2012. Tidal vegetation: spatial and temporal dynamics. In: Tidal Salt Marshes of the San Francisco Bay Estuary: ecology, restoration, preservation, pp. 97-111. A. Palaima (ed.) University of California Press, Berkeley.

Callaway, J. C. & V.T. Parker. 2012. Current issues in tidal marsh restoration. In: Tidal Salt Marshes of the San Francisco Bay Estuary: ecology, restoration, preservation, pp. 253-262. A. Palaima (ed.) University of California Press, Berkeley.

Parker, V.T., M.C. Vasey, and J.E. Keeley. 2012. *Arctostaphylos*. In B. G. Baldwin et al. (eds.), The Jepson Manual: Vascular Plants of California, Second Edition, pp. 686-699. Univ. of California Press, Berkeley.

Callaway, J.C., R. Thom, V.T. Parker, J. Rybczyk, H. Diefenderfer, A. Borde. 2012. Pacific coast tidal wetlands. In: D. Batzer and A. Baldwin (eds.) Wetland Habitats of North America: Ecology and Conservation Concerns, pp. 103-116. University of California Press, Berkeley, CA.

Diggory, Z.E. and V.T. Parker. 2011. Seed supply and revegetation dynamics at restored tidal marshes, Napa River, CA. Restoration Ecology 19, No. 101: 121–130.

Tuxen, K, D. Stralberg, S. Siegel, L. Schile, V.T. Parker, M. Vasey, J. C. Callaway, and M. Kelly. 2011. Tidal marsh vegetation mapping using high-resolution aerial photography and a hybrid pixel-based classification approach. Wetlands Ecology and Management 19: 141-157.

Parker, V.T., L.M. Schile, M.C. Vasey and J.C. Callaway. 2011. Do gradient-directed transects work at small scales: A test using tidal wetland vegetation sampling design. Ecosphere 2: art99. [doi:10.1890/ES11-00151.1]

Stralberg, D., M. Brennan, J.C. Callaway, J.K. Wood, L. M. Schile, D. Jonsomjit, M. Kelly, V.T. Parker and S. Crooks. 2011. Evaluating tidal marsh sustainability in the face of sea-level rise: a hybrid modeling approach applied to San Francisco Bay. PLoS One 6(11): e27388. doi:10.1371/journal.pone.0027388

Schile LM, Callaway JC, Parker VT, Vasey MC. 2011. Salinity and inundation influence productivity of the halophytic plant *Sarcocornia pacifica*. Wetlands 31(6): 1165-1174.

Parker, V. T., J. C. Callaway, L. M. Schile, M. C. Vasey & E. Herbert. 2011. Climate change and San Francisco Bay-Delta tidal wetlands. San Francisco Estuary and Watershed Science 9(3): http://escholarship.org/uc/item/8j20685w

Callaway, J. C., V.T. Parker, L. M. Schile, M. C. Vasey & E. Herbert. 2011. Restoration in the San Francisco Bay-Delta. San Francisco Estuary and Watershed Science 9(3): http://escholarship.org/uc/item/5dd3n9x3

Hillman, J.M. and V.T. Parker. 2011. Constraints on population recruitment for a rare serpentine seep thistle. In: Willoughby, J.W., B.K. Orr, K.A. Schierenbeck, and N.J. Jensen (eds.) Strategies and Solutions, pp. 87-95. CNPS, Sacramento, CA

Parker, V.T. 2011. Diversity and management of rare *Arctostaphylos* and *Ceanothus* species in chaparral. In: Willoughby, J.W., B.K. Orr, K.A. Schierenbeck, and N.J. Jensen (eds.) Strategies and Solutions, pp. 233-238. CNPS, Sacramento, CA

Parker, V.T., E.R. Herbert, J.C. Callaway, L.M. Schile, and M.C. Vasey. 2011. Climate change impacts on San Francisco Bay-Delta tidal wetlands. In: Willoughby, J.W., B.K. Orr, K.A. Schierenbeck, and N.J. Jensen (eds.) Strategies and Solutions, pp. 239-244. CNPS, Sacramento, CA

Fetscher, A.E.; M.A. Sutula, J.C. Callaway, V.T. Parker, M.C. Vasey, J.N. Collins, and W.G. Nelson. 2010. Patterns in Estuarine Vegetation Communities in Two Regions of California: Insights from a Probabilistic Survey. Wetlands 30:833–846

Gluesenkamp, D., M. Chassé, M. Frey, V.T. Parker, M.C. Vasey, and B. Young. 2009/2010. Back from the brink: A second chance at discovery and conservation of the Franciscan Manzanita. Fremontia 37(4)/38(1): 3-17.

**2000-2009** –(30)

Parker, V. T., M.C. Vasey, and J. E. Keeley. 2009. *Arctostaphylos*. In: Flora of North America, North of Mexico, Volume 8, Magnoliophyta: Paoniaceae to Ericaceae, pp. 406-445. Oxford University Press, New York, Oxford.

Wahlert, G., V.T. Parker, and M.C. Vasey. 2009. A phylogeny of *Arctostaphylos* (Ericaceae) inferred from ITS sequence data. J. Bot. Res. Inst. Texas. 3(2): 673-682.

Leck, M. A., A. Baldwin, V. T. Parker, L. M. Schile, and D. Whigham. 2009. Plant communities of tidal freshwater wetlands of the continental USA and Canada, pp. 41-58. In: A. Barendregt, D.F. Whigham and A.H. Baldwin. (eds.) *Tidal Freshwater Wetlands*. Backhuys Publ; Leiden, The Netherlands.

Vasey, M. C. and V. T. Parker. 2008. A newly described species of *Arctostaphylos* (Ericaceae) from the central California coast. Madroño 55:240-245.

Parker, V. T., R. L. Simpson & M. A. Leck. 2008. The seedling as a dynamic life history stage (synthesis chapter), pp. 371-386. In: M. A. Leck, V. T. Parker and R. L. Simpson (eds). Seedling Ecology and Evolution. Cambridge University Press, Cambridge.

 Leck, M. A., V. T. Parker and R. L. Simpson. 2008. Seedling ecology and evolution, an introduction, pp. 1-16. In: M. A. Leck, V. T. Parker and R. L. Simpson (eds). Seedling Ecology and Evolution. Cambridge University Press, Cambridge.

Parker, V. T. 2007. Diversity and Evolution of *Arctostaphylos* and *Ceanothus*. Fremontia 35 (4): 8-11.

Parker, V. T. 2007. Status and Management Recommendations for *Arctostaphylos virgata* (Marin Manzanita) in Point Reyes National Seashore. Technical report for NPS Point Reyes National Seashore. 82 pp.

Callaway, J., V. T. Parker, M. C. Vasey and L. M. Schile. 2007. Emerging issues for the restoration of tidal marsh ecosystems in the context of predicted climate change. Madroño 54 (3):234–248.

Parker, V. T., M. C. Vasey and J. E. Keeley. 2007. Taxonomic revisions in the genus *Arctostaphylos* (Ericaceae). Madroño 54 (2): 148-155.

Keeley, J. E., M. C. Vasey and V. T. Parker. 2007. Subspecific variation in the widespread burl-forming *Arctostaphylos glandulosa*. Madroño 54 (1): 42-62.

Wahlert, G, V. T. Parker and M.C. Vasey. 2006. The *Arctostaphylos bakeri* complex of Sonoma County. The Four Seasons, Journal of the Regional Parks Botanical Garden 12 (4): 45-55.

Land, E., K. Withee, L. M. Schile, V. T. Parker. 2006. User centered rapid application development. In: N. Guelfi, A. Savidis (eds.) Rapid integration of software engineering techniques.  (Springer-Verlag; Berlin).  Lecture Notes in Computer Science  Vol. 3943: 34-49.

O’Neil, S. E. and V. T. Parker. 2005. Factors contributing to the seed bank size of two obligate seeding *Ceanothus* species in Northern California. Madroño 52: (3): 182-190.

Le Fer, D. and V. T. Parker. 2005. Effect of seasonality of burn on seed germination in chaparral; the role of soil moisture. Madroño 52 (3): 166-174.

Boykin, L. M., M. C. Vasey, V. T. Parker and R. Patterson. 2005. Two lineages of *Arctostaphylos* (Ericaceae) identified using the internal transcribed spacer (ITS) region of the nuclear genome. Madroño 52 (3): 139-147.

Clark, C. J., J. R. Poulsen, E.F. Connor, B. Bolker and V. T Parker. 2005. Comparative seed shadows of bird-, monkey, and wind-dispersed trees in a central African tropical rain forest. Ecology 86:2684-2694.

Douglas, R.B., V. T. Parker, K. W. Cullings. 2005. Belowground ectomycorrhizal community structure of mature lodgepole pine and mixed conifer stands in Yellowstone National Park. Forest Ecology and Management 208 (2005) 303–317.

Parker, V. T. and M. C. Vasey. 2004. *Arctostaphylos gabilanensis*, a newly described auriculate-leaved manzanita from the Gabilan Mountains, California. Madroño 51 (3): 322-325.

Clark, C. J., J. R. Poulsen, E. F. Connor and V. T. Parker.2004Fruiting trees as dispersal foci in a closed canopy tropical forest. Oecologia 139: 66-75.

Parker, V. T. 2004. Community of the individual: implications for the community concept. Oikos 104: 27-34.

Cullings, K.W., M. H. New, S. Makhija, and V. T. Parker 2003. Effects of litter addition on ectomycorrhizal associates of a lodgepole pine (*Pinus contorta*) stand in Yellowstone National Park. Appl. Envir. Microbiol. 2003 69: 3772-3776.

Hardesty, B. D. and V. T. Parker. 2003. Community seed rain patterns and a comparison to adult community structure in a West African tropical forest. Plant Ecology 164: 49-64.

Parker, V. T. 2002. The concept of the ecological community and a clash of perspectives: A reply to Looijen and van Andel. Persp. Plant Ecol. Evol. Syst 5:139-143.

Parker, V. T. 2001*.* Conceptual problems and scale limitations of defining ecological communities: A critique of the CI concept (Community of Individuals). Perspectives in Plant Ecology, Evolution, and Systematics **4**, 80-96.

Clark, C. J., J. R. Poulsen, and V. T. Parker. 2001. Frugivore impact on seed rain patterns in a central African tropical forest. Biotropica 33: 606-620.

Cullings, K. W., V. T. Parker, Shilpa Makhija and S. K. Finley. 2001. Effect of defoliation on the ectomycorrhizal community in a mixed *Pinus contorta/Picea engelmannii* forest in Yellowstone National Parker. Oecologia 127: 533-539.

Hileman, L., V. T. Parker and M C. Vasey. 2001. Phylogeny and biogeography of Arbutoideae (Ericaceae); implications for the Madrean-Tethyan hypothesis. Systematic Botany 26: 131-143.

Cullings, K. W., D. R. Vogler, V. T. Parker and S. K. Finley. 2000. Specificity of ectomycorrhizal interactions in a mixed Pinus contorta/Picea engelmannii forest in Yellowstone National Parker. Applied Environmental Microbiology 66: 4988-4991.

Byrd, K. B., V. T. Parker, D. R. Vogler, and K. W. Cullings. 2000. The influence off clear-cutting on ectomycorrhizal fungus diversity in a lodgepole pine (*Pinus contorta*) stand, Yellowstone National Park, Wyoming, and Gallatin National Forest, Montana. Can. J. Bot. 78(2):149-156.

**1990-1999** –(22)

Baxter, J. W. and V. T. Parker. 1999. Canopy gaps and topography structure a northern coastal scrub community on California coastal bluffs. Madroño 46: 69-79.

Vasey, M. C. and V. T. Parker. 1999. Nascent inflorescences in *Arctostaphylos pringlei*: response to Keeley and Wells. Madroño 46: 51-54.

Hunter, J. C., V. T. Parker, and M. G. Barbour. 1999. Understory light and gap dynamics in an old-growth forested watershed in coastal California. Madroño 46: 1-6.

Markos, S. E., V. T. Parker, L. Hileman, and M. Vasey. 1999. Phylogeny of the *Arctostaphylos* *hookeri* complex (Ericaceae) based on nrDNA sequence data from the ITS region. Madroño 45: 187-199.

Horton, T. R., T. Bruns and V. T. Parker. 1999. Ectomycorrhizal fungi in *Arctostaphylos* patches contribute to the establishment of *Pseudotsuga menziesii*. Canadian Journal of Botany 77: 93-102.

Dunne, J. A. and V. T. Parker. 1999. Seasonal soil water potential patterns and establishment of *Pseudotsuga menziesii* seedlings in chaparral. Oecologia 119: 36-45.

Whitney, K. D., M. K. Fogiel, A. Lamperti, K. M. Holbrook, D. J. Stauffer, B. D. Hardesty, V. T. Parker, and T. B. Smith. 1998. Seed dispersal by *Ceratogymna* hornbills in the Dja Reserve, Cameroon. J. Trop. Biol. 14:351-371.

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Parker, V. T. and S. T. A. Pickett. 1998. Historical contingency and multiple scales of dynamics in plant communities, pp. 171-191. In: D. L. Peterson and V. T. Parker (eds.) *Ecological Scale: Theory and applications*. Columbia Univ. Press, NY.

Parker, V. T. 1997. The scale of successional models and restoration objectives. Restoration Ecology 5: 301-306.

Wood, M. and V. T. Parker. 1997. Factors affecting the distribution of *Arctostaphylos myrtifolia* (Ericaceae): the role of fire in the maintenance of a proposed endangered species and its habitat. In: *Fire effects on rare and endangered species and habitats*. Int. Assoc. Wildland Fire; Fairfield, WA.

Parker, V. T. and S. T. A. Pickett. 1997. Restoration as an ecosystem process: implications of the current ecological paradigm. In: Urbanska, K. M., N. R. Webb and P. J. Edwards (eds.) *Restoration Ecology and Sustainable Development*, pp 17-32. Cambridge: Cambridge University Press.

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Brand, T. and V. T. Parker. 1995. Scale and general laws of vegetation dynamics. Oikos 73: 375-380.

Pickett, S. T. A. and V. T. Parker. 1994. Avoiding the old pitfalls: Opportunities in a new discipline. Restoration Ecology 2: 75-79.

Parker, V. T. 1993. Conservation issues in land management. In J. E. Keeley (coord. ed.) *The Interface Between Ecology and Land Development*, pp. 53-60. Southern California Academy of Sciences, Los Angeles.

Hunter, J. and V. T. Parker. 1993. The disturbance regime of an old growth forest in coastal California. Journal of Vegetation Science 4: 19-24.

Pickett, S. T. A., V. T. Parker, and P. F. Fiedler. 1992. The new paradigm in ecology: implications for conservation biology above the species level. In: P. L. Fiedler and J. A. Jain (eds.) *Conservation Biology: the theory and practice of nature conservation, preservation and management,* pp. 65-88. Chapman and Hall, NY.

Parker, V. T. 1992. Allelopathy in plant communities. In: W. A. Nierenberg (ed.) *Encyclopedia of Earth System Science*, pp. 71-77. Academic Press, San Diego.

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Kelly, V. R. and V. T. Parker. 1990. Seed bank survival in sprouting and nonsprouting *Arctostaphylos* species. American Midland Naturalist 124:114-123.

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**1979-1989** (19)

Parker, V. T. 1989. Maximizing vegetation response on management burns by identifying fire regimes, pp. 87-91. *Fire and Watershed Management*, Sacramento, CA, Watershed Management Council, October 1988.

Rogers, C. R., V. T. Parker, V. R. Kelly, and M. K. Wood. 1989. Maximizing chaparral vegetation response to prescribed burns: experimental considerations, p. 158. *Fire and Watershed Management,* Sacramento, CA, Watershed Management Council, October 1988.

Kelly, D. O., V. T. Parker and C. Rogers. 1989. Chaparral response to burning: a comparison of a summer wildfire to prescribed burns in Marin County, p. 151. *Fire and Watershed Management,* Sacramento, CA, Watershed Management Council, October 1988.

Simpson, R. L., M. A. Leck, and V. T. Parker. 1989. Seed banks: General concepts and methodological issues. In, M. A. Leck, V. T. Parker and R. L. Simpson (eds) *Ecology of Soil Seed Banks*, pp. 3-8. Academic Press, NY.

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Leck, M. A., R. L. Simpson, and V. T. Parker. 1989. The seed bank of a freshwater tidal wetland and its relationship to vegetation dynamics. In R. R. Sharitz and J. W. Gibbons (eds.) *Freshwater wetlands and wildlife*, pp. 189-205. DOE Symp. Series No. 61. CONF-8603101, USDOE Office of Sci. and Tech. Inf., Oak Ridge, Tenn.

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Parker, V. T. 1987. Effect of wet-season management burns on chaparral regeneration: implications for rare species, pp. 233-237. In T. E. Elias (ed.) *Conservation and Management of Rare and Endangered Plants,* Calif. Native Plant Society, Sacramento, CA.

Parker, V. T. and C. R. Billow. 1987. A comparative survey of soil nitrogen beneath evergreen and deciduous California oaks, pp. 98-102. In T. R. Plumb (ed.) *Multiple-use Management of California's Hardwood Resources*. USDA Forest Service General Technical Report PSW-100.

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Simpson, R. L., M. A. Leck, and V. T. Parker. 1985. Comparative ecology of *Impatiens capensis* Meerb. (Balsaminaceae) in central New Jersey. Bulletin of the Torrey Botanical Club 112:295-311.

Parker, V. T. and M. A. Leck. 1985. Relationships of seed banks to plant distribution patterns in a freshwater tidal wetland. American Journal of Botany 72:161-174.

Parker, V. T. 1984. Correlation of physiological divergence with reproductive mode in chaparral shrubs. Madroño 31:231-242.

Hopkins, D. R. and V. T. Parker. 1983. A study of the seed bank of a salt marsh in northern San Francisco Bay. American Journal of Botany 71:348-355.

Parker, V. T. and C. H. Muller. 1982. Vegetational and environmental changes beneath isolated live oak trees (Quercus agrifolia) in a California annual grassland. American Midland Naturalist 107:69-81.

Mahall, B. E., V. T. Parker, and P. J. Fonteyn. 1981. Growth and photosynthetic irradiance responses of *Avena fatua* L. and *Bromus diandrus* Roth. and their ecological significance in California savannas. Photosynthetica 15:5-15.

Parker, V. T. and C. H. Muller. 1979. Allelopathic dominance by a tree associated herb in a California annual grassland. Oecologia 37:315-320.

**Grant Support** (last 20 years):

US Fish and Wildlife: (2017-2018). V. T. Parker and M.C. Vasey: Enhancement of the federally endangered *Cirsium hydrophilum* var. *hydrophilum* in the Suisun Tidal Marshes. $52,000.

Solano Land Trust: (2016-2018). Vasey, M.C and V.T. Parker: Carbon Sequestration in Agro-Ecological Systems: A Feasible Climate Mitigation and Sustainability Strategy? $76,505 subcontract - ***funded***

U.S. Department of the Navy: $79,634. (2014-2016). Parker, V.T. and D. Burge. Genetic evaluation of Del Mar Manzanita and Nuttall’s scrub oak populations at Marine Corps Air Station Miramar.

SF State Office of Research and Sponsored Projects small grants awards (summer 2010; 2012; 2016): 1) Ecology and evolution of *Arctostaphylos* ($2100); 2) learning to model evolutionary dynamics using Python ($1600); Seed bank dynamics of *Arctostaphylos*: role of scatter-hoarding rodents ($1300); Extending animal foraging theory ot plan community dynamics.

California Department of Transportation, ~$29K, funded. Parker, V.T. Emergency development of a conservation plan for *Arctostaphylos franciscana* in the Presidio.

Save the Redwoods League proposal, $15,000, funded, Parker, V.T. Influence of light on the survival and growth of *Arctostaphylos virgata*, a redwood forest associated species.

NSF (Population and Community Ecology cluster). $25k, funded, 15 August 2009, Parker, V.T. RAPID: Caching as a fire adaptation in *Arctostaphylos*.

NICCR (Department of Energy, National Institute for Climate Change Research) preproposal 15 May 2009, accepted, 9 June 2009; full proposal submitted at $120k, funded, 28 October 2009 at $90k; second award at $90k.

The Nature Conservancy. $17,250, funded September 2008. Parker, V.T. and M.C. Vasey. Post-fire response of rare plant populations in chaparral- Bonny Doon Ecological Reserve, Santa Cruz County, CA

Presidio Trust. $10,000, funded 2008. Parker, V.T. Management plan for the Presidio manzanita.

Dept of Energy-National Institute for Climate Change Research (DOEn-NICCR) proposal, $119,939, (funded as modified. fall 2007) Parker, V.T. and J.C. Callaway. Predicting tidal marsh plant community response to climate change: A Pacific Coast perspective using field experiments.

Presidio Trust; $41,000, (funded summer 2007). Parker, V.T. Genetic relationships among parents and seedlings of the Presidio manzanita, *Arctostaphylos montana* subsp. *ravenii*, and other manzanitas.

California Bay Delta Authority, 2006. $649,000, (funded fall 2006). V.T. Parker and J.C. Callaway. Effects of climate change on tidal wetlands and links to pelagic food webs in the San Francisco Bay-Delta

California Bay Delta Authority, 2006. V. T. Parker, J. Callaway, M. Vasey. $45,000. Integrated Regional Wetlands Monitoring Pilot Project; integrated products (funded fall 2006).

South Bay Island Salt Ponds. 2006. J. Callaway and V. T. Parker. $60, 000. Are sedimentation processes and rates at a recently breached salt pond sufficient for marsh recovery. (funded January 2006).

California Bay Delta Authority, 2003. Integrated Regional Wetlands Monitoring Pilot Project, Vegetation Project. $439,000. with M. C. Vasey and J. Callaway (USF). (funded August 2003)

Presidio Trust: 2004 (supplement 2006): V. T. Parker $4000 (+$3000 supplement). Genetics tests of selfing in *Arctostaphylos* *hookeri* subsp. *ravenii*, a federally-listed endangered taxon.

National Science Foundation-Undergraduate Minorities in Environmental Biology Program: $400,000, with E.F.Connor (PI) and G. Lebuhn. (funded February 2002) (Math student supplement awarded to Connor summer 2003)

Callaway, J.C., V.T. Parker, and M. Vasey. West coast pilot 2002 intertidal assessment: California intensification for wetland sampling for EMAP (Environmental Monitoring and Assessment Program), EPA. Funded through the San Francisco Estuary Institute. $68,000. August 2002 - January 2003.

National Science Foundation, Integrative Biology-RUI-Faculty: $15,000, Proposal to Study Mycorrhizal Differentiation Among Fungal Species in Douglas-fir forest Using Stable Isotopic Ratios, with Todd Dawson, UC Berkeley. (funded September 2000)

Napa County Land Trust, $17,000, Impact of prescribed burning on shrub dominants at the Mt. George Botanical Preserve, Napa County. (funded June 1999)

USDA, National Resource Initiative, Competitive Grants Program, Forest, Range and Aquatic Ecosystems: $237,000 (3yr) Structure of Mycorrhizal Fungal Communities: A test of models. (funded May 1999)

National Science Foundation, Ecology-RUI: $350,000 (3yr) Mycorrhizal community structure and specificity of symbiotic relationships, Yellowstone National Park (fundedFebruary 1999)

SFSU-Research, Scholarship and Creative Activity Mini-Grant: $5k (1yr) Impact of species specific fungal pathogen on the dynamics of a salt marsh, China Camp State Park, Marin Co, CA. (Submitted all 1996: funded, funded January 1997)

National Science Foundation, Research Experience for Undergraduates Program: $285,000 (3yr) (funded May 1996) Training Undergraduates in Science and Technology. (co-PI with numerous faculty)

NIH, Minority International Research Training ($210,000 of a $896,763 award), Co-PI with Tom Smith (PI), Influence of large hornbill frugivores on forest dynamics in the Dja Reserve, southern Cameroon, Africa (3 yr) (funded September 1995)

USDA, National Resource Initiative, Competitive Grants Program, Forest, Range and Aquatic Ecosystems: $170,000 (3yr) Disturbance and mycorrhizal facilitation of Douglas-fir invasion of chaparral. (funded July 1995)

National Science Foundation, Ecology-RUI: $350,000 (3yr) Mycorrhizal community structure and specificity of symbiotic relationships, Yellowstone National Park (funded February 1995)

National Science Foundation, Academic Research Infrastructure (ARI): $347,384, Acquisition of DNA analysis instrumentation for molecular studies. (funded 1995) (co-PI with numerous faculty)

Mendocino National Forest, $20,000; Evaluation of seasonal variation in prescribed burning of chaparral and its impact on plant diversity and ecosystem management. (funded March 1993).

World Wildlife International, $25,000 for home range, diet, and keystone aspects of the Black-Casqued Hornbill in the maintenance of a tropical rainforest, Camaroon, Africa. co-PI with T.B. Smith (SFSU) and Roger Fotso, (Katholieke Universiteit, Leuven, Belgium). (funded 1993-1996).

USDA, National Resource Initiative, Competitive Grants Program, Forest, Range and Aquatic Ecosystems: $172,000 (3yr) Mycorrhizal facilitation of Douglas-fir invasion of chaparral. (funded 1992-1995).

Missouri Botanical Garden and NSF, $20,000; plus 3 $5000 undergraduate fellowships; A molecular systematic study of the genus *Arctostaphylos*. (Ericaceae) with M. Vasey (SFSU). (funded November 1992).

**PROFESSIONAL ACTIVITIES (last 10 years)**

President, California Botanical Society (2009-2014); Past-president on Council (2014-2017)

Editor, Newsletter of the California Botanical Society, *Nemophila* (2015-present)

Board of Editors, *Ecologia Mediterranea*, North American representative (2014-present)

Science Effects Analysis Panel, Bay-Delta Conservation Plan, State of California (2011-2014)

Author for development of new management plan for the Presidio Manzanita; The Presidio Trust, National Park Service; and co-author of a conservation and management plan for the Franciscan Manzanita. 2009

Author for modification of Fire Management Plan, Point Reyes National Seashore, to account for rare manzanitas and other rare shrubs. 2007

New board member, Central Coast Fire Learning Project, out of Elkhorn Slough NERR, 2010.

*Arctostaphylos* identification workshops (Jepson Herbarium Workshops; Santa Rosa Chapter, California Native Plant Society, Chico State herbarium) ongoing, Jepson every other year since 1994.

Maritime chaparral workshops (Elkhorn Slough National Estuarine Research Reserve, Coastal Education Program), 2003-ongoing.

Science Advisory Board, Nevada County 2020 (California) (1999-2003).

Talks and presentations: (last 5 years includes: UCLA, Chico State University, Sonoma State University, UC Berkeley, Presidio Manzanita Workshop, Cal-Fed Science Conference, California Association of Fire Ecologists, California Conservation Conference 2015, Northern California Botanists, International Joint Botanical Society Meeting (US and Canada), International Society for Ecological Restoration Annual Meeting, Society of Wetland Scientists, California Estuarine Research Society, Botanical Society of America annual meetings, Ecological Society of America annual meetings. Many presentations to chapters of CNPS and other groups (Santa Ynez Valley Natural History Group, Southern California Horticultural Society, etc).

**Administrative Positions**

Director, Sierra Nevada Field Campus (1980-1985), San Francisco State University

Council Member and Recording Secretary, California Botanical Society (1985-1988)

Division Chair, Department of Biology (1988-1991)

Chair, Hiring, Tenure and Promotion Committee, Department of Biology (1994-1997; 2012-2014)

Acting Chair, Department of Biology (1998-1999)

President, California Botanical Society (2009-2014)

Member of the Council, California Botanical Society (2014-2017)

Chair, University Tenure and Promotion Committee, SF State, (2010-2011)

Primary Investigator, with continuous funding from USDA, NSF, CalFed, Dept of Energy, other agencies (1993-present)

**Teaching Activities**

Complete history:

*Lower Division*: Introductory Botany, Introductory Biology 2, World of Plants (GE), Introductory Zoology, Botany and Biology labs

*Upper Division*: Ecology of California (GE, General Education), Plants of California (GE), Human Ecology (GE), Plant Ecology, General Ecology, Plant Anatomy

*Graduate Level*: Fire Ecology, Community Ecology, Global Climate Change, Physiological Plant Ecology, miscellaneous seminars.

Masters Students: Completed their research degree: 55 Master’s students (67% women and 20% underrepresented minorities). Nine current Master’s students.