

## **BIOBIBLIOGRAPHY**

JEAN H. LANGENHEIM

Professor Emerita of Biology

Department of Ecology and Evolutionary Biology  
Fellow of Crown and Adlai E. Stevenson Colleges

### **ACADEMIC HISTORY**

- 2000-06      Research Professor, University of California, Santa Cruz
- 1994-      Professor Emerita of Biology, University of California, Santa Cruz
- 1973-94      Professor of Biology, University of California, Santa Cruz
- 1981      Fellow, Institute of Advanced Studies, Research School of Biology, Australian National University
- 1974-76      Chair, Biology Board, University of California, Santa Cruz
- 1974      Visiting Professor of Biology, Harvard University
- 1974      Visiting Professor, Universidade de Pará, Brazil
- 1968-73      Associate Professor of Biology, University of California, Santa Cruz
- 1966-68      Assistant Professor of Biology, University of California, Santa Cruz
- 1964-66      Research Associate, Botanical Museum, Harvard University
- 1964-65      Scholar, Radcliffe Institute for Independent Study (now Bunting Institute)
- 1962-66      Research Fellow in Biological Laboratories, Harvard University
- 1959-62      Research and Teaching Associate in Department of Botany, University of Illinois
- 1957-59      Assistant Professor, Department of Biology, San Francisco College for Women
- 1954-59      Research Associate in Department of Botany, University of California, Berkeley

- 1956-57      Instructor, Department of Biology, San Francisco College for Women
- 1955-56      Lecturer, Department of Botany, Mills College
- 1953-66      Faculty Member, Rocky Mountain Biological Laboratory, Vice President  
(1965-66); Member of Board of Directors (1962-65)
- 1951-52      Lecturer, Department of Biology, Coe College

## **EDUCATION**

- 1953    University of Minnesota, Ph.D. (Botany with minor in Geology)
- 1949    University of Minnesota, M.S. (Botany with minor in Geology)
- 1946    University of Tulsa, B.S., Summa Cum Laude (Biology)

## **MAJOR RESEARCH INTERESTS**

Physiographic ecology  
Biochemical ecology  
Tropical ecology  
Evolution of terpenoid-producing plants  
Fossil resins (amber)  
Ecologic and systematic concepts  
Human utilization of plants  
History of women's contributions to ecology

## **MEMBERSHIPS IN HONORARY SOCIETIES**

Sigma Xi  
Sigma Delta Epsilon  
Delta Gamma Kappa  
Phi Beta Kappa  
Society of Women's Geographers  
Mortar Board

## **ORGANIZATIONS**

International Society of Chemical Ecology

Botanical Society of America  
Ecological Society of America  
British Ecological Society  
Association for Tropical Biology  
California Botanical Society  
California Academy of Sciences  
Society for Economic Botany  
Brazilian Botanical Society  
American Institute of Biological Sciences  
American Association for the Advancement of Science

## HONORS

- 2012 Fellow, Ecological society of America
- 2011 Honorary Member, Sigma Delta Epsilon (Graduate Women in Science)
- 2006 American Botanical Society Centennial Award; Fellow's Medal, California Academy of Sciences; Homecoming Lecturer, University of Tulsa
- 2005 Dedication of 2004 Volume of *Madrono* by California Botanical Society
- 2004 Klinger Book Award for *Plant Resins* from Society of Economic Botany
- 2003 John Dwyer Lectureship, St. Louis University/Missouri Botanic Garden
- 1996 Plenary Address, Mexican Symposium on Chemical Ecology, Oaxtapec, Mexico
- 1996 Keynote Address, Society of Women Geographers, Washington, D.C.
- 1995 Plenary Address, European Isoprenoid Society, Prague, Czech Republic
- 1995 Phi Beta Kappa Keynote Address, University of Tulsa
- 1995 Plenary Address, Geochemistry Section, American Chemical Society
- 1994-2000 University of Tulsa Board of Visitors, College of Arts & Sciences
- 1994 Alumni member of Phi Beta Kappa, University of Tulsa
- 1993-94 President, Society for Economic Botany

- 1992-94      President, UCSC Sigma Xi Chapter
- 1992    Plenary Address, International Society Chemical Ecology, Tampa, FL
- 1991    Award, Best Presentation, Phytochemical Section, American Botanical Society
- 1991    Distinguished Nieuwland Lectureship, University of Notre Dame
- 1990-92      Vice President, President-elect, Society for Economic Botany
- 1990    Plenary Address, Plant Resources meeting, Kunming, China
- 1989    Annual Banquet Speaker, California Botanical Society; Award, Best Presentation, Biological Science Section, Pacific Division AAAS; Keynote Speaker, UCSC Graduate Commencement
- 1987    Sandia Foundation Lectureship, University of New Mexico, Albuquerque; UCSC Academic Senate Faculty Research Lecturer
- 1986-87      President, Ecological Society of America and International Society of Chemical Ecology
- 1986    Annual Bunting Institute Science Lecturer, Radcliffe/Harvard University
- 1985    President, Association for Tropical Biology
- 1981    Fellow, Institute of Advanced Studies, Australian National University
- 1979    Distinguished Alumni Award, University of Tulsa
- 1975-77      Academic Vice President, Organization for Tropical Studies
- 1974    Elected, Society of Women Geographers
- 1973    Elected Fellow, California Academy of Sciences
- 1972    Cooley Award, American Society of Plant Taxonomists
- 1967    Elected Fellow, American Association for Advancement of Science
- 1965-66      Cabot Fellowship, Harvard University
- 1964-65      Radcliffe Institute for Independent Studies Scholar, Radcliffe/Harvard University
- 1962-63      American Association of University Women Wiley Fellowship, Harvard

## University

- 1953 Elected, Sigma Xi and Sigma Delta Epsilon
- 1948-49 American Association of University Women Ford Fellowship, University of Minnesota
- 1943-46 American Association of University Women Scholarships and Howard Science Scholarship, University of Tulsa

## GRANTS

- 1994-95 UCSC Faculty Research Committee Travel Grant - \$1,000
- 1993-95 Hartman Foundation Grant - \$1,000
- 1990-93 UC Land Reserve Grant - \$1,997
- 1989-90 UCSC Faculty Research Committee Travel Grant - \$550
- 1988-90 Hartman Foundation Grant - \$3,000
- 1988-89 UCSC Faculty Research committee Travel Grant - \$550
- 1988-89 UCSC Seed Funds - \$6,119
- 1987-88 UCSC Faculty Research Committee Research Grant - \$1,500
- 1984-88 NSF Research Grant - \$170,000
- 1984-85 UCSC Faculty Research Committee Research Grant - \$1,500
- 1983-84 UCSC Faculty Research Committee Research Grant - \$1,495
- 1981-84 NSF Creativity Research Grant Award - \$105,000
- 1981-82 UCSC Faculty Research Committee Research Grant - \$980
- 1979-82 California Department of Parks and Recreation - \$47,000
- 1978-81 NSF Research Grant - \$125,000
- 1977-80 American Chemical Society (Petroleum Research Fund) - \$24,000
- 1976-78 NSF Research Grant - \$65,000
- 1975-78 Sloan Foundation Grant (with G. S. Hammond) - \$35,000
- 1976-77 UCSC Faculty Research Committee Research Grant - \$1,300
- 1975-76 UCSC Faculty Research Committee Research Grant - \$900
- 1975 Botanical Society of America/American Society of Plant Physiologists Travel Grant to International Botanical Congress, Leningrad - \$600
- 1974-76 NSF Research Grant - \$43,000
- 1972-74 NSF Research Grant - \$35,000
- 1971-72 UCSC Faculty Research Committee Research Grant - \$675
- 1971 NSF Dissertation Improvement Grant for Y. T. Lee - \$3,300
- 1969-71 NSF Research Grant - \$20,000
- 1969-70 UCSC Faculty Research Committee Research Grant - \$1,250
- 1969 NSF Research Amendment Grant - \$4,300
- 1968 Ford Foundation Research Grant - \$2,000

- 1966-68 NSF Research Grant - \$20,100  
1963-66 NSF Research Grant (with E. S. Barghoorn, Harvard University) - \$42,900  
1964 American Philosophical Society Research Grant - \$700

## **PUBLICATIONS**

### **BOOKS AND BOOK CHAPTERS**

- Langenheim, J. H. (2010). *The Odyssey of a Woman Field Scientist: A Story of Passion, Persistence, and Patience*. Bloomington, IN: Xlibris.
- Langenheim, J. H. (2003). *Plant Resins: Chemistry, Evolution, Ecology and Ethnobotany*. Portland, OR: Timber Press.
- Langenheim, J. H. (2002). Amber. In *Encyclopedia of Science and Technology*, 9<sup>th</sup> Edition. New York, NY: McGraw-Hill Book Co..
- Langenheim, J. H. (2001). Contribuciones de los Estudios de Largo Plaza a la Teoría de la Defensa Química: Perspectivas con Arbors Resinosas de Zonas Templadas Tropicales. In A. L. Anaya, F. Espinosa-Garcia and R. Cruz Ortega (Eds.), *Relaciones Químicas entre Organisms: Aspectos Básicos y Perspectivas de sus Aplicación*, pp. 251-304. Instituto de Ecología, Universidad Nacional Autónoma de México and Plaza y Valdés, S.A. de C.V.
- Langenheim, J. H. (1996). Biology of Amber-producing Trees: Focus on Case Studies of *Hymenaea* and *Agathis*. In K. B. Anderson and C. J. Krelling (Eds.), *American Chemical Society Symposium Series, No. 617: Amber, Resinite and Fossil Resins*, pp. 1-30. Washington, DC: American Chemical Society.
- Langenheim, J. H. (1984). Roles of Plant Secondary Compounds in Wet Tropical Ecosystems. In E. Medina, H. Mooney and C. Vasquez-Yanes (Eds.), *Physiological Ecology of Plants in the Wet Tropics*, pp. 189-208. The Hague, Netherlands: W. Junk Publishing.
- Langenheim, J. H. and Thimann, K. V. (1982). *Botany: Plant Biology and its Relation to Human Affairs*. Hoboken, NJ: John Wiley & Sons, Inc.
- Langenheim, J. H. (1981). Amber. In *Encyclopedia of Science and Technology*. pp. 403-405. New York, NY: McGraw-Hill Book Co.
- Langenheim, J. H. (1981). Terpenoids in the Leguminosae. In R. M. Poll and P. H.

- Raven (Eds.), *Advances in Legume Systematics*, pp. 627-655. Kew, UK: Royal Botanic Gardens.
- Lee, Y. T. and Langenheim, J. H. (1975). Systematics of the Genus *Hymenaea* L (Leguminosae: Caesalpinioideae, Detarieae). University of California Publications in Botany 69.
- Langenheim, J. H. (1973). Leguminous Resin-producing Trees in South America and Africa. In B. J. Meggers, E. S. Ayensu and W. D. Duckworth (Eds.), *Tropical Forest Ecosystems in Africa and South America: A Comparative Review*, pp. 89-104. Washington, DC: Smithsonian Press.
- Langenheim, J. H. (1964). Lichens and Mosses. In *Mountain Flowers of New England*. pp. 1-10. Boston, MA; Appalachian Mountain Club.

## REVIEWS

- Langenheim, J. H. (2011). Review of *A Natural History of the New World: The Ecology and Evolution of Plants in the Americas*, by A. Graham. University of Chicago Press. *Ecology*, 92: 1706-1707.
- Langenheim, J. H. (1997). Review of *Cultivating Women, Cultivating Science: Flora's Daughters and Botany in England, 1760 to 1860*, by A. B. Shteir. The John Hopkins University Press. *American Scientist*, 85: 485-486.
- Langenheim, J. H. (1995). Review of *American Women Afield: Writings by Pioneering Women Naturalists*, by M. M. Bonta (Ed.). Texas A&M University Press. *Quarterly Review of Biology*, 70: 547-548.
- Langenheim, J. H. (1994). Review of *Biogeography and Ecology of the Rain Forests of Eastern Africa*, by J. C. Lovett and S. K. Wasser (Eds.). Cambridge University Press. *Bioscience*, 44: 632-633.
- Langenheim, J. H. (1992). Review of *Trees of life: Saving the Tropical Forests and Their Biological Wealth*, by K. Miller and L. Tanglely. Beacon Press. *Bioscience*, 42: 302-303.
- Langenheim, J. H. (1992). Review of *Tropical Forests: Some African and Asian Case Studies of Composition and Structure*, by J. Borota. Elsevier. *Bioscience*, 42: 200-201.
- Langenheim, J. H. (1990). Review of *Race to Save the Tropics*, by R. Goodland. Island Press. *Bioscience*, 40: 844-845.

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- Langenheim, J. H. (1990). Review of *Chemical Mediation of Coevolution*, by K. C. Spencer (Ed.). Academic Press. *Journal of Chemical Ecology*, 16: 2787-2789.
- Langenheim, J. H. (1989). Review of *Heartwood and Tree Exudates*, by W. E. Hillis. Springer Verlag. *American Scientist*, 77: 392.
- Langenheim, J. H. (1988). Review of *Restoration Ecology: A Synthetic Approach to Ecological Restorations*, by W. R. Jordan, M. E. Gilpin and J. D. Aber (Eds.). Cambridge University Press. *Bioscience*, 38: 804-805.
- Langenheim, J. H. (1988). Review of *In the Rainforest*, by C. Caufield. University of Chicago Press. *Summer Reading 1988*, Kresge College, UCSC.
- Langenheim, J. H. (1987). Review of *Microbiology of the Phyllosphere*, by N. J. Fokkema and J. van den Heuvel (Eds.). Cambridge University Press. *Ecology*, 68: 2072-2073.
- Langenheim, J. H. (1985). Review of *The Primary Source: Tropical Forests and Our Future*, by N. Myers. WW. Norton Co. *Bioscience*, 35: 18.

## JOURNAL ARTICLES

- Rein, F. A., Los Huertos, M., Holl, K. D., and Langenheim, J. H. (2007). Restoring Native Grasses as Vegetation Buffers in Coastal Agricultural Landscape. *Madroño*, 54: 249-257.
- Fujiyoshi, P. T., Gliessman, S. R., and Langenheim, J. H. (2007). Factors in the Suppression of Weeds by Squash Interplanted in Corn. *Weed Biology and Management* 7: 105-114.
- Nissenbaum, A., Yakir, D., and Langenheim, J. H. (2005). Bulk Carbon, Oxygen, and Hydrogen Stable Isotope Composition of Recent Resins from Amber-Producing *Hymenaea*. *Naturwissenschaften*, 92: 26-29.
- Fujiyoshi, P. T., Gliessman, S. R., and Langenheim, J. H. (2001). The Inhibitory Potential of Compounds Released by Squash (*Cucurbita* spp) in an Ecologically Significant Manner. *Allelopathy*, 9: 1-18.
- Peer, W. A., Briggs, W. R., and Langenheim, J. H. (1999). Shade Avoidance Responses in Two Common Coastal Redwood Forest Species, *Sequoia sempervirens*

- (Taxodiaceae) and *Satureja douglasii* (Lamiaceae), Occurring in Various Light Environments. *American Journal of Botany*, 86: 640-645.
- Peer, W. A. and Langenheim, J. H. (1998). Influence of Phytochrome on Leaf Monoterpene Variation in *Satureja douglasii*. *Biochemical Systematics and Ecology*, 26: 25-34.
- Ward, B. B., Courtney, K. J., and Langenheim, J. H. (1997). Inhibition of *Nitrosomas europea* by Monoterpenes from Coastal Redwood (*Sequoia sempervirens*) in Whole Cell Cultures. *Journal of Chemical Ecology*, 23: 2583-2598.
- Shimada, I., Anderson, K. B., Haas, H., and Langenheim, J. H. (1997). Amber from 1000-year-old Prehispanic Tombs in Northern Peru. *Materials Issues in Art and Archeology V*: 3-18.
- Langenheim, J. H. (1996). The Early History and Progress of Women Ecologists: Emphasis on Research Contributions. *Annual Review of Ecological Systems*, 27:1-53.
- Goralka, R. J. and Langenheim, J. H. (1996). Comparison of Foliar Monoterpenoids Among Ontogenetic Stages of the California Bay Tree, *Umbellularia californica*, in Relation to Deer Herbivory. *Biochemical Systematics and Ecology*, 24: 13-23.
- Espinosa-Garcia, F. J., Rollinger, J., and Langenheim, J. H. (1996). Coastal Redwood Leaf Endophytes: Their Occurrence, Interactions and Response to Host Volatile Terpenoids. In S. C. Redlin and L. C. Carris (Eds.) *Endophytic Fungi in Grasses and Woody Plants*, pp. 101-120. St. Paul, MN: American Phytopathological Society.
- Goralka, R. J., Schumaker, M. A., and Langenheim, J. H. (1996). Chemical Analysis of California Bay Tree, *Umbellularia californica*, Foliage During Leaf Stage Development in Relation to Seasonal Browse Quality. *Biochemical Systematics and Ecology*, 24: 93-103.
- Goralka, R. J. and Langenheim, J. H. (1995). Analysis of Foliar Monoterpenoid Content in the California Bay Tree, *Umbellularia californica*, Among Populations Across the Distribution of the Species. *Biochemical Systematics and Ecology*, 23: 439-448.
- Wood, S. E., Gaskin, J. F., and Langenheim, J. H. (1995). Loss of Monoterpenes from *Umbellularia californica* Leaf Litter. *Biochemical Systematics and Ecology*, 23: 581-591.
- Kim, J. J. and Langenheim, J. H. 1994. The Effects of *Pseudotsuga menziesii*

- Monoterpenoids on Nitrification. *Korean J. Ecol.*, 17: 251-260.
- Langenheim, J. H. (1994). Higher plant terpenoids: Phytocentric Overview of Their Ecological Roles. *Journal of Chemical Ecology*, 20: 1223-1280.
- Rollinger, J. and Langenheim, J. H. (1993). Geographic Variation in the Fungal Endophyte Community Composition in Leaves of *Sequoia sempervirens*. *Mycologia*, 85: 149-156.
- Espinosa-Garcia, F. J., Saldivar-Garua, P., and Langenheim, J. H. (1993). Dose-Dependent Effects of *In Vitro* of Essential Oils on Growth of Two Endophytic Fungi in Coastal Redwood Leaves. *Biochemical Systematics and Ecology*, 21: 185-194.
- Espinosa-Garcia, F. J. and Langenheim, J. H. (1991). Effect of Some Leaf Essential Oil Phenotypes in Coastal Redwood on Growth of Its Predominantly Endophytic Fungus, *Pleuroplacanema* sp. *Journal of Chemical Ecology*, 17: 1837-1857.
- Espinosa-Garcia, F. J. and Langenheim, J. H. (1991). Effect of Some Leaf Essential Oil Phenotypes in Coastal Redwood on Growth of Several of Its Fungi with Endophytic Stages. *Biochemical Systematics and Ecology*, 19: 629-641.
- Espinosa-Garcia, F. J. and Langenheim, J. H. (1991). Effects of Sabinene and -Terpinene from Coastal Redwood Leaves Acting Singly or Mixtures on the Growth of Some of Their Fungus Endophytes. *Biochemical Systematics and Ecology*, 19: 643-650.
- Espinosa-Garcia, F. J. and Langenheim, J. H. (1990). The Leaf Fungal Community of a Coastal Redwood Population: Diversity and Spatial Patterns. *New Phytologist*, 116: 89-97.
- Fail, G. L. and Langenheim, J. H. (1990). The Infection Process by *Pestalotia subcuticularia* on Leaves of *Hymenaea courbaril*. *Phytopathology*, 80: 1259-1265.
- Langenheim, J. H. (1990). Plant Resins. *American Scientist*, 78:16-24.
- Greenlee, J. M. and Langenheim, J. H. (1990). Historic Fire Regimes and Their Relation to Vegetation Patterns in the Monterey Bay Area of California. *Amer. Midland Naturalist*, 124: 239-255.
- Wang, J. and Langenheim, J. H. (1990). Seasonal and Diurnal Variation in Leaf Sesquiterpenes of Greenhouse-Grown Saplings of *Hymenaea* and *Copaifera*. *Acta Botanica Yunnanica*, 12: 851-91. (In Chinese)
- Macedo, C. A. and Langenheim, J. H. (1989). Intra- and Interplant Leaf Sesquiterpene

- Variability in *Copaifera langsdorfii*: Relation to Microlepidopteran Herbivory. *Biochemical Systematics and Ecology*, 17: 551-557.
- Macedo, C. A. and Langenheim, J. H. (1989). A Further Investigation of Leaf Sesquiterpene Variation in Relation to Herbivory in Two Brazilian Populations of *Copaifera langsdorfii*. *Biochemical Systematics and Ecology*, 17: 217-224.
- Macedo, C.A. and Langenheim, J. H. (1989). Microlepidopteran Herbivory in Relation to Leaf Sesquiterpenes in *Copaifera langsdorfii* Adult Trees and Their Seedling Progeny in a Brazilian Woodland. *Biochemical Systematics and Ecology*, 16: 217-224.
- Langenheim, J. H. (1988). Address of Past President: The Path and Progress of American Women Ecologists. *Bulletin of the Ecological Society of America*, 69: 184-197.
- Feibert, E. B. and Langenheim, J. H. (1988). Leaf Resin Variation in *Copaifera langsdorfii*: Relation to Irradiance and Herbivory in a Brazilian Woodland. *Phytochemistry*, 27: 2527-2532.
- Figuiolo, R., Naylor, S., Wang, J., and Langenheim, J. H. (1987). Unusual Nonprotein Amino Acid and Its Relationship to Phenolic and Nitrogenous Compounds in *Copaifera*. *Phytochemistry*, 26: 3255-3259.
- Hall, G. D. and Langenheim, J. H. (1987). Geographic Variation in Leaf Monoterpenes of *Sequoia sempervirens*. *Biochemical Systematics and Ecology*, 15: 31-43.
- Hall, G. D. and Langenheim, J. H. (1986). Within-Tree Spatial Variation in the Leaf Monoterpenes of *Sequoia sempervirens*. *Biochemical Systematics and Ecology*, 14: 625-632.
- Nascimento, J. C. and Langenheim, J. H. (1986). Leaf Sesquiterpenes and Phenolics in *Copaifera multijuga* (Leguminosae) on Contrasting Soil Types in a Central Amazonian Rain Forest. *Biochemical Systematics and Ecology*, 14: 615-624.
- Arrhenius, S. P. and Langenheim, J. H. (1986). The Association of *Pestalotia* on the Leguminous Tree Genera *Hymenaea* and *Copaifera* in the Neotropics. *Mycologia*, 78: 673-676.
- Langenheim, J. H., Convis, C. L., Macedo, C. A., and Stubblebine, W. H. (1986). *Hymenaea* and *Copaifera* Leaf Sesquiterpenes in Relation to Lepidopteran Herbivory in Southeastern Brazil. *Biochemical Systematics and Ecology*, 14: 41-49.
- Langenheim, J. H., Macedo, C. A., Ross, M. K., and Stubblebine, W. H. (1986). Leaf Development in the Tropical Leguminous Tree *Copaifera* in Relation to

- Microlepidopteran Herbivory. *Biochemical Systematics and Ecology*, 14: 51-59.
- Hall, G. D. and Langenheim, J. H. (1986). Temporal Changes in the Leaf Monoterpenes of *Sequoia sempervirens*. *Biochemical Systematics and Ecology*, 14: 61-69.
- Hueber, F. M. and Langenheim, J. H. (1986). Dominican Amber Tree Had African ancestors. *Geotimes*, 31: 8-10.
- Langenheim, J. H., Convis, C. L., Stopol, K., and Stubblebine, W. H. (1986). Defesa Quimica Foliar de *Copaifera* e *Hymenaea* Contra Insetos (Lepidoptera) no Estado de São Paulo. Silvicultura em São Paulo, Brasil.
- Langenheim, J. H., Osmond, C. B., Brooks, A., and Ferrar, P. J. (1984). Photosynthetic Responses to Light in Seedlings of Selected Amazonian and Australian Rainforest Tree Species. *Oecologia* 63: 215-224.
- Xena de Enrech, N., Arroyo, M. K., and Langenheim, J. H. (1983). Sistematica del Genero *Copaifera* L. en Venezuela (Leguminosae: Caesalpinioideae Detarieae). *Acta Botanica Venezuelana*, 1427: 239-290.
- Arrhenius, S. P. and Langenheim, J. H. (1983). Inhibitory Effects of *Hymenaea* and *Copaifera* Leaf Resins on the Leaf Fungus *Pestalotia subcuticularis*. *Biochemical Systematics and Ecology* 11: 361-366.
- Langenheim, J. H. and Stubblebine, W. H. (1983). Variation in Leaf Resin Composition Between Parent Tree and Progeny in *Hymenaea*: Implications for Herbivory in the Humid Tropics. *Biochemical Systematics and Ecology*, 11: 97-106.
- Arrhenius, S. P., Foster, C. E., Edmonds, C. G., and Langenheim, J. H. (1983). Sesquiterpenes in Leaf Pocket Resins of *Copaifera* species. *Phytochemistry*, 22: 471-472.
- Cunningham, A., Gay, I. D., Oehlschlager, A. C., and Langenheim, J. H. (1983). <sup>13</sup>C NMR and IR Analyses of Structure, Aging and Botanical Origin of Dominican and Mexican Ambers. *Phytochemistry*, 22: 965-968.
- Langenheim, J. H. and Hall, G. D. (1983). Sesquiterpene Deterrence of a Leaf-Tying Lepidopteran *Stenoma ferrocaneella* on *Hymenaea stigonocarpa* in Central Brazil. *Biochemical Systematics and Ecology*, 11: 29-36.
- Benson, A., Greenlee, J., and Langenheim, J. H. (1982). Assessment of Wildland Fuel Hazards in Big Basin Redwoods State Park, California. *Proceedings of the Auto-Crato V/International Society of Photogrammetry & Remote Sensing*: 55-63.
- Langenheim, J. H., Lincoln, D. E., Stubblebine, W. H., and Gabrielli, A. C. (1982).

- Evolutionary Implications of Leaf Resin Pocket Patterns in the Tropic Tree *Hymenaea* (Caesalpinioideae: Leguminosae). *American Journal of Botany*, 69: 595-607.
- Lincoln, D. E. and Langenheim, J. H. (1981). A Genetic Approach to Monoterpenoid Compositional Variation in *Satureja douglasii*. *Biochemical Systematics and Ecology*, 9: 153-160.
- Crankshaw, D. R. and Langenheim, J. H. (1981). Variation in Terpenes and Phenolics Through Leaf Development in *Hymenaea* and Its Possible Significance to Herbivory. *Biochemical Systematics and Ecology*, 9: 115-124.
- Langenheim, J. H., Arrhenius, S., and Nascimento, J. C. (1981). Relationship of Light Intensity of Leaf Resin Composition and Yield in the Tropical Leguminous Genera *Hymenaea* and *Copaifera*. *Biochemical Systematics and Ecology*, 9: 27-37.
- Langenheim, J. H., Foster, C. E., McGinley, R. B. (1980). Inhibitory Effects of Different Quantitative Compositions of *Hymenaea* Leaf Resins on a Generalist Herbivore *Spodoptera exigua*. *Biochemical Systematics and Ecology*, 8: 385-396.
- Stubblebine, W. H. and Langenheim, J. H. (1980). Estudos Comparativos da Variabilidade na Composição da Resina da Folha Entre Ârvore Parental e Progenie de Espécies Seleccionadas de *Hymenaea*. II. Comparação de Populações Amazônicas cum um Populacao Sudeste Brasileiro. *Acta Amazonica*, 10: 293-309.
- Langenheim, J. H. (1980). Comparative Studies of Polymerization (Emphasizing Photo-Initiation) of Selected Modern and Fossil Resins. *American Chemical Society Reports on Research*, 106-107.
- Lincoln, D. E. and Langenheim, J. H. (1979). Variation of *Satureja douglasii* Monoterpenoids in Relation to Light Intensity and Herbivory. *Biochemical Systematics and Ecology*, 7: 289-298.
- Langenheim, J. H., Stubblebine, W. H., and Foster, C. E. (1979). Effect of Moisture Stress on Leaf Resin Composition and Yield in *Hymenaea courbaril*. *Biochemical Systematics and Ecology*, 7: 21-28.
- Stubblebine, W. H., Lincoln, D. E., and Langenheim, J. H. (1978). Vegetative Responses to Photoperiod in the Tropical Leguminous Tree *Hymenaea courbaril*. *Biotropica*, 10: 18-29.
- Langenheim, J. H., Foster, C. E., Lincoln, D. E., and Stubblebine, W. H. (1978). Implications of Variation in Resin Composition Among Organs, Tissues and Populations in the Tropical Legume *Hymenaea*. *Biochemical Systematics and Ecology*, 6: 1-10.

- Ecology*, 6: 299-313.
- Rice, R. L., Lincoln, D. E., and Langenheim, J. H. (1978). Palatability of Monoterpenoid Compositional Types of *Satureja douglasii* to a Generalist Herbivore *Ariolimax dolichophallus*. *Biochemical Systematics and Ecology*, 6: 45-53.
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## **ABSTRACTS**

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## **COLLEGE SERVICE**

### **College Appointments**

1968-73 Residential Preceptor (Adlai E. Stevenson)

### **College Committees**

1975-78 Privilege and Tenure Committee (Merrill)  
 1974-75 Academic Standing Committee (Adlai E. Stevenson)  
 1972-73 Review Committee (Adlai E. Stevenson)  
 1970-72 Faculty Review Committee (Adlai E. Stevenson)  
 1970-71 Steering Committee on Faculty Ecological Tour Campus (Adlai E. Stevenson)  
 1969-70 Curriculum Committee (Adlai E. Stevenson)  
 1968-69 Personnel Policies Committee (Adlai E. Stevenson)

## **Special College Responsibilities**

1975-78 Public Lecture Series on International Interactions in Science and Technology (Merrill)

## **Other College Services**

1978-79 Advisor for students (Crown)  
1971-72 Advisor for Environmental Studies studies (Adlai E. Stevenson)

## **UNIVERSITY SERVICE**

### **Academic Senate Committees**

1996 USCS Education Abroad Program Committee  
1993-95 Systemwide Education Abroad Program Committee  
1993 Faculty Research Lecture Committee  
1974-90 UCSC Education Abroad Program Committee  
1988-89 Faculty Research Lecture Committee  
1982-84 Committee on Committees  
1976-77 UCSC Education Abroad Program Committee  
1975-76 Faculty Research Lecture Committee  
1970-72 Status of Women Committee  
1969-73 Member, Graduate Council  
1969-71 Chair, Graduate Council  
1966-68 Exam and Grade Committee

### **Administrative Appointments**

1989-90 Recruitment Committee for Advancement Officer for Natural Sciences  
1989-90 Recruitment Committee for Plant Molecular Biologist  
1989-90 Recruitment Committee for Greenhouse Research Personnel  
1986-90 Chair, Arboretum Advisory Committee  
1988-89 Land Reserves Committee  
1987-89 Biology Graduate Advisory Committee  
1983-89 Organizer, Botany Tea Seminars  
1980-87 Biology Personnel Committee  
1981-85 Biology Curriculum Committee and Advisor for Plant Sciences  
1982-83 Recruitment Committee for Insect Ecologist (Environmental Studies)  
1981-82 Recruitment Committee for Greenhouse Position (Biology)  
1981-82 Organizer, Botany Tea Seminars

- 1979-80 Recruitment Committee for Plant Ecologist (Environmental Studies)
- 1979-80 Organizer, Botany Tea Seminars
- 1976-77 Search Committee Dean of Graduate Committee
- 1976-77 Chair, Recruitment Committee for Animal Ecologist (Biology)
- 1975-76 Farm and Garden Committee
- 1974-76 Chair, Biology Board
- 1974-75 Upper Campus Task Force
- 1970-75 Land and Natural Reserves Committee
- 1973-74 Committee to Review Student Evaluations of Biology Courses
- 1971-72 Biology Space Committee
- 1970-71 Biology Board Recruiting Committee
- 1968-72 Organizer, Botany Tea Seminars

### **Other University Service**

- 1972-87 UC Board member, Organization for Tropical Studies
- 1985-87 Chancellor's Judiciary Committee
- 1983 UC President's Advisory Committee for UCLA
- 1981-83 Chancellor's Charges Committee
- 1979-81 Miller Property Advisory Committee
- 1979-80 Chancellor's Committee for Undergraduate Awards
- 1971-80 Statewide Committee on Tropical Studies
- 1975-78 Academic Vice President, Organization for Tropical Studies
- 1976-77 UC Representative, State Liaison Committee on Latin American Ecology
- 1974-76 UCLA Standing Committee on Latin American Ecology
- 1972-76 Executive Secretary, Organization for Tropical Studies
- 1974-75 UC Berkeley, Symposium on Amazon Basin
- 1971-72 Resolutions Committee, All University Conference on Graduate Affairs
- 1971-72 Steering Committee, All University Conference on Graduate Affairs
- 1971-72 Standing Committee on Graduate Programs
- 1971-72 Council on Coordination of Graduate Affairs

### **PROFESSIONAL ACTIVITIES**

#### **Consultative or Other Service to Civic, State, or National Governmental Agencies**

- 1971-present NSF Systematic and Environmental Panel - reviews
- 1989-95 National Research Council/International Union of Biological Science
- 1988-89 Council of Scientific Society Presidents
- 1987 Department of Energy Review Team, National Environmental Research  
Parks

- 1975-87 US National Committee, NSF-CNPq, Floral Inventory Amazon Basin  
 1985 Consultant to Getty Museum on amber  
 1983 Executive Committee elected to organize International Society of  
 Chemical Ecology  
 1977-81 Ecology Committee, Scientific Advisory Board, Environmental  
 Protection Agency  
 1980 International Panel "Future of Botanical Gardens and Arboreta," New  
 York Botanical Garden  
 1975-78 Chair, US National Academy of Sciences/Brazilian CNPq Scientific  
 Advisory Committee  
 1975-78 Vice President for Academic Affairs, Organization Tropical Studies  
 1975-77 Chair, US National Academy of Sciences/Brazilian CNPq Scientific  
 Advisory Subcommittee on Humid Tropics and Subcommittee on  
 Projeto Flora Amazonica  
 1976 US National Academy of Sciences panel on underexploited tropical  
 legumes  
 1972-75 Secretary, Organization Tropical Studies  
 1971 AID Committee, Contribution Individual Scientists to Developing  
 Countries  
 1970 International Biological Program Committee, Ecosystems Analysis  
 1968 International Biological Program Committee, Chemical Interactions in  
 Plants and Animals  
 1965-66 Vice President, Rocky Mountain Biological Laboratory  
 1962-65 Board of Directors, Rocky Mountain Biological Laboratory

### **Participation in Public Lectures or Forums**

- 2010 UCSC Womens Club lecture, March  
 2006 TU Homecoming lecture, October  
 2004 UCSC EEB special lecture, September  
 2004 San Jose State Univ. Biology seminar, April  
 2003 California Botanical Society  
 2003 UCSC Arboretum lecture & book signing  
 2003 Dyer Lecture, Missouri Botanical Gardens, April  
 1996 Plenary Speaker, Chemical Ecology Symposium, Oaxtepec, Mexico,  
 November  
 Keynote Speaker, Society of Women Geographers, Washington, D.C., May  
 1995 Keynote Speaker, Phi Beta Kappa, University of Tulsa, April  
 Plenary Speaker, European Isoprenoid Conference, Prague, September  
 1994 Plenary Speaker, Geochemistry Section, American Chemistry Society  
 Symposium, Washington, D.C., August  
 1993 House Ear Institute, Los Angeles, October  
 Plenary Speaker, International Society of Chemical Ecology

- Symposium, Tampa, Florida, August
- 1992 House Ear Institute, Lecture honoring Dr.W. Hitzelberger, Los Angeles, April
- 1990 Annual Lecturer, Society of Women Geographers, San Francisco, November
- Ecological Society of America Symposium, Snowbird, Utah, July
- Monterey Bay Aquarium Symposium, Monterey, March
- 1989 UC Berkeley, Soils Department, November
- International Society of Chemical Ecology, Goteborg, Sweden, August
- Graduate Commencement Speaker, UCSC, June
- Banquet Speaker, California Botanical Society, March
- 1988 Plenary Speaker, Symposium on Plant Resources, Kunming, China, October
- University of Nanjing, Nanjing, China, September
- Presidential Address, Ecological Society of America, American Institute of Biological Sciences, Davis, California, August
- University of Georgia, June
- University of British Columbia, March
- Rancho Santa Ana Botanic Garden, February
- 1987 University of New Mexico, Colloquium, September
- American Institute of Biological Sciences, Columbus, Ohio, August
- International Society of Chemical Ecology, Hull, England, July
- Commencement Speaker, Women in Science, UCSC, June
- 1986 Bunting Institute, Radcliffe/Harvard, April
- 1985 Instituto Nacional de Pesquisas da Amazonia, Manaus, Brazil, February
- Universidade Estadual de Campinas, Brazil, March
- 1984 American Institute of Biological Sciences, Ft. Collins, Colorado, August
- International Society of Chemical Ecology Symposium, University of Texas, Austin, June
- International Symposium, Micromolecules in Evolution, São Paulo, Brazil, March
- 1983 American Institute of Biological Sciences, Grand Forks, North Dakota, August
- Universidad Nacional Autónoma de México Symposium on Physiological Ecology of Tropical Rainforests, June
- National Meeting, Society of Women Geographers, Berkeley, California, April
- University of Utah, Department of Biology Colloquium, March
- UC Berkeley, Botany Department Colloquium, February
- Gordon Research Conference, Ventura, California, January
- 1982 American Institute of Biological Sciences, State College, Pennsylvania, August
- 1981 XIII International Botany Congress, Sydney, Australia, August
- University of Adelaide, Australia, April

- Australian National University, March
- 1980 US/Thailand Symposium of Underexploited Tropical Plants, Bangkok, Thailand, September
- American/Canadian Botanical Societies, Vancouver, British Columbia, August
- UC Davis, Botany Department, March
- Gordon Research Conference, California Botanical Society, Santa Barbara, February
- UC Irvine, Botany Colloquium, January
- 1979 Universidad Nacional Autónoma de México, Mexico City, November
- Instituto Nacional de Pesquisas da Amazonia, Manaus, Brazil, March
- XIII International Congress, Biological Model for Diversification in the Tropics, Caracas, Venezuela, February
- 1978 International Legume Congress, London, England, July
- American Institute of Biological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, June
- University of Maryland, College Park, Botany Department, May
- Arizona State University, Tempe, Biology Colloquium, April
- UC Riverside, Plant Science Colloquium, February
- 1977 UC Davis, Botany Department, November
- Universidad de Costa Rica, November
- American Institute of Biological Sciences, East Lansing, Michigan, August
- 1976 Universidad Central de Venezuela, Caracas, December
- Universidade Estadual de Campinas, Brazil, June
- 1975 UCLA Seminar on Latin American Ecology, October
- AIBS, Corvallis, Oregon, August
- XII International Botanical Congress, Leningrad, July
- AAUW, Santa Cruz, April
- UC Berkeley Symposium on Amazon Basin, March
- OTS/CONICIT Symposium, San Jose, Costa Rica, February
- 1974 Instituto Nacional de Pesquisas da Amazonia, Manaus, Brazil, June
- UC Los Angeles Seminar on Latin American Ecology, March
- Harvard University Biology Colloquium, February
- 1973 California Botanical Society, December
- Phytochemical Society of America, August
- Carnegie Institute, Washington, Stanford University, April
- 1972 UC Berkeley Botany Department Colloquium, November
- AIBS, Minneapolis, MN, September
- Symposium, Chemistry in Evolution, Strasbourg, France, July
- 1971 AAUW and Fresno State University, Fresno, CA, November
- AIBS 2<sup>nd</sup> National Biological Congress, October
- Canadian Botanical Society, Edmonton, Canada, June
- 1970 California Botanical Society, October

- UC Berkeley Geography Department, June  
 UC Santa Cruz, Earth Day Address, April  
 University of Kansas, Lawrence, All-University Lectures, March
- 1969 XI International Botanical Congress, Organizer and Chair Discussion,  
 Evolutionary Considerations of Lower Terpenoids in Plants,  
 August  
 San Diego State University Colloquium, April  
 UC Berkeley Botany Department Colloquium, January
- 1968 Street Tree Symposium, Santa Cruz, CA, September  
 University of Pretoria, South Africa, Botany Department, July
- 1967 AIBS, Bloomington, IN, August

### **Service to the Staff of Editorial Board of Scholarly Journals or Other Publications**

- 1990 - Editorial Board, *Biochemical Systematics and Ecology*  
 1967- Editorial Board, *American Journal of Botany*, *American Naturalist*,  
*Biochemical Systematics and Ecology*, *Economic Botany*, *Ecology*,  
*Ecological Monographs*, *Journal of Chemical Ecology*, *Science*,  
*American Scientist*
- 1983-90 Editorial Board, *UC Publications in Botany*  
 1973-78 Editorial Board, *UC Publications in Geology*

### **Membership and Activities in Professional Associations**

- 1996-97 President, Sigma Xi, UCSC Club  
 1992-94 President, Sigma Xi, UCSC Club  
 1990-91 Vice President, Sigma Xi, UCSC Club  
 1989-94 Member, National Research Council/International Union Biological  
 Sciences
- 1985-86 President, Association for Tropical Biology  
 1982-83 Member, UCSC Academic Senate Committee on Committees  
 1980 Member, New York Botanical Garden Panelist, Future Botanical  
 Gardens and Arboreta
- 1977-87 Member, NSF Committee on Projeta Flora Amazonica  
 1977-81 Member, Environmental Protection Agency, Ecology Committee of  
 Scientific Advisory Board
- 1977 Member, U.S. National Academy of Sciences Panel on Underexploited  
 Tropical Legumes
- 1975-78 Chair, U.S. National Academy of Sciences/Brazilian CNPq  
 Subcommittee on Humid Tropics
- 1975-77 Member, UC Standing Committee on Latin American Ecology  
 1975-76 Member, UC Dean of Natural Sciences Advisory Committee

1971	Member, AID Committee, Contributions of Individual Scientists to Developing Countries
1970-73	Member, UC Academic Senate Status of Women Committee
1969-73	Member, UCSC Graduate Council
1973-78	Council Member, California Botanical Society
1969-71	Chair, UC Graduate Council on Coordination of Graduate Affairs
1969-71	Member, All University Meeting on Graduate Education Committee
1968	Member, U.S. National Committee for International Biological Programs, Chemical Interactions Among Plants
1967-73	Member, UC Land and Natural Reserves Committee
1966-73	Residential Preceptor, Adlai E. Stevenson College of UCSC
1966-67	Member, UCSC Arboretum and Plantations Committee
1966	Founding Member, Adlai E. Stevenson College of UCSC
1962-65	Vice President, Rocky Mountain Biological Laboratory
1954-66	Board Member, Rocky Mountain Biological Laboratory
1953	Paleobotanista, Insituto Geologico de Colombia

### **Ecological Society of America**

2011-15	Chair, Past Presidents 2015 Committee
2010-	Member, Historical Records Committee
1993-95	Member, International Relations Committee
1990-93	Chair, Ecologists in Developing Countries Committee
1986-87	President
1985-86	President-elect
1983-87	Nominating Committee
1982-85	Chair, Publications Committee
1980-81	Vice President

### **Society for Economic Botany**

1993-94	President
1992-93	President-elect
1991-92	Vice President

### **International Society for Chemical Ecology**

1990-93	Member, Committee on Future Meetings
1984-90	Member, Council
1986-87	President
1985-86	Vice President
1983	Member, Executive Committee for Founding Society

**Botanical Society of America**

1990-92 Member, Nomination Committee  
 1978-82 Member, Education Committee  
 1978-79 Chair, Phytochemical Section  
 1976-78 Member, Conservation Committee

**Organization for Tropical Studies**

1971-87 UC Board Member  
 1975-77 Academic Vice President  
 1972-75 Secretary, Executive Committee

**TEACHING 1995-2009**

all quarters: Thesis Research

**TEACHING 1994-95**

Quarter	Dept	Sect	Course	Enrolled	Shared?
		<u>% Taught</u>			
Fall	Bio	195	Senior Thesis Research	1	No
		100%			
		280L	Biochemical Ecology	3	No
		100%			
		299	Thesis Research	3	No
		100%			
Winter	Bio	193	Field Study	1	No
		100%			
		280L	Biochemical Ecology	3	No
		100%			
		297	Independent Study	2	No
		100%			
		299	Thesis Research	3	No
		100%			
Spring	Bio	195	Senior Thesis Research	1	No
		100%			
		280L	Biochemical Ecology	6	No
		100%			
		297	Independent Study	1	No
		100%			
		299	Thesis Research	4	No

100%

### TEACHING 1993-94

<u>Quarter</u>	<u>Dept</u>	<u>Sect</u>	<u>Course</u>	<u>Enrolled</u>	<u>Shared?</u>
Fall	Bio	195	Senior Thesis Research	1	No
		100%			
		299	Thesis Research	4	No
		100%			
Winter	Bio	280L	Biochemical Ecology	6	No
		100%			
		299	Thesis Research	9	No
		100%			
Spring	Bio	280L	Biochemical Ecology	4	No
		100%			
		297	Independent Study	4	No
		100%			
		299	Thesis Research	6	No
		100%			

### TEACHING 1992-93

<u>Quarter</u>	<u>Dept</u>	<u>Sect</u>	<u>Course</u>	<u>Enrolled</u>	<u>Shared?</u>
Fall	Bio	193	Field Study	1	No
		100%			
		195	Senior Thesis Research	1	No
		100%			
		199	Tutorial	2	No
		100%			
		210	Experimental Plant Ecology	11	No
100%					
		297	Independent Study	2	No
		100%			
		299	Thesis Research	4	No
		100%			
Winter	Bio	195	Senior Thesis Research	2	No
		100%			
		280L	Biochemical Ecology	8	No
		100%			
		297	Independent Study	2	No

		100%			
		299	Thesis Research	9	No
		100%			
Spring	Bio	195	Senior Thesis Research	2	No
		100%			
		280L	Biochemical Ecology	8	No
		100%			
		299	Thesis Research	13	No
		100%			

### TEACHING 1991-92

Quarter	Dept	Sect	Course	Enrolled	Shared?
		% Taught			
Fall	Bio	195	Senior Thesis Research	1	No
		100%			
		280L	Biochemical Ecology	7	No
		100%			
		297	Independent Study	4	No
		100%			
		299	Thesis Research	5	No
		100%			
Winter	Bio	195	Senior Thesis Research	2	No
		100%			
		280L	Biochemical Ecology	8	No
		100%			
		297	Independent Study	2	No
		100%			
		299	Thesis Research	10	No
		100%			
Spring	Bio	175	Plants & Human Affairs	64	No
		100%			
		199	Tutorial	2	No
		100%			
		280L	Biochemical Ecology	9	No
		100%			
		297	Independent Study	2	No
		100%			

### TEACHING 1990-91

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	195	Senior Thesis Research	2	No
			100%		
		198	Independent Field Study	1	No
			100%		
		210	Experimental Plant Ecology	13	No
			100%		
		280L	Biochemical Ecology	9	No
			100%		
		297	Independent Study	4	No
			100%		
		299	Thesis Research	4	No
			100%		
Winter	Bio	297	Independent Study	3	No
			100%		
		299	Thesis Research	8	No
			100%		
Spring	Bio	195	Senior Thesis Research	1	No
			100%		
		297	Independent Study	1	No
			100%		

### TEACHING 1989-90

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	195	Senior Thesis Research	1	No
			100%		
		199	Tutorial	1	No
			100%		
		210	Experimental Plant Ecology	12	No
			100%		
		297	Independent Study	1	No
			100%		
		299	Thesis Research	4	No
			100%		
Winter	Bio	195	Senior Thesis Research	1	No
			100%		
		199	Tutorial	1	No
			100%		
		209	Topics in Advanced Plant Sciences	10	Yes

		80%			
		297	Independent Study	4	No
		100%			
		299	Thesis Research	6	No
		100%			
Spring	Bio	175	Plants & Human Affairs	46	No
		100%			
		195	Senior Thesis Research	2	No
		100%			
		211	Topics in Research Biochemical Ecology	9	No
		100%			
		297	Independent Study	11	No
		100%			
		301	Supervised Teaching	2	No
		100%			

#### TEACHING 1988-89

Quarter	Dept	Sect	Course	Enrolled	Shared?
		% Taught			
Fall	Bio	195	Senior Thesis Research	1	No
		100%			
		199	Tutorial	1	No
		100%			
		210	Experimental Plant Ecology	14	No
		100%			
		297	Independent Study	2	No
		100%			
		299	Thesis Research	6	No
		100%			
Winter	Bio	195	Senior Thesis Research	3	No
		100%			
		209	Topics in Advanced Plant Sciences	8	Yes
		80%			
		297	Independent Study	3	No
		100%			
		299	Thesis Research	6	No
		100%			
Spring	Bio	175	Plants & Human Affairs	33	No
		100%			

195	Senior Thesis Research	2	No
100%			
297	Independent Study	2	No
100%			
299	Thesis Research	6	No
100%			
301	Supervised Teaching	2	No
100%			

### TEACHING 1987-88

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	210	Experimental Plant Ecology	12	No
		100%			
		299	Thesis Research	10	No
		100%			
Winter	Bio	209	Topics in Advanced Plant Sciences	8	No
		100%			
		299	Thesis Research	6	No
		100%			
Spring	Bio	175	Plants & Human Affairs	56	No
		100%			
		297	Independent Study	1	No
		100%			
		299	Thesis Research	10	No
		100%			

### TEACHING 1986-87

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	195	Senior Thesis Research	3	No
		100%			
		198	Independent Field Study	1	No
		100%			
		210	Experimental Plant Ecology	20	No
		100%			
Winter	Bio	195	Senior Thesis Research	2	No

		100%	209	Topics in Advanced Plant Sciences	9	Yes
		80%	297	Independent Study	8	No
Spring	Bio	100%	175	Plants & Human Affairs	51	No
		100%	195	Senior Thesis Research	1	No
		100%	297	Independent Study	3	No
		100%	299	Thesis Research	5	No
		100%	301	Supervised Teaching	2	No
		100%				

**TEACHING 1985-86**  
(on leave Spring quarter)

Quarter	Dept	Sect	Course	Enrolled	Shared?
Fall	Bio	210	Experimental Plant Ecology	13	No
		100%			
		299	Thesis Research	2	No
		100%			
Winter	Bio	193	Field Study	1	No
		100%			
		195	Senior Thesis Research	1	No
		100%			
		209	Topics in Advanced Plant Sciences	9	No
		100%			
		297	Independent Study	1	No
		100%			
		299	Thesis Research	4	No
		100%			
Spring	Bio	195	Senior Thesis Research	2	No
		100%			
		198	Independent Field Study	3	No
		100%			
		297	Independent Study	10	No

100%  
 299 Thesis Research 6 No  
 100%

**TEACHING 1984-85**  
 (on leave Winter and Spring quarters)

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	210	Experimental Plant Ecology	10	No
			100%		
		297	Independent Study	2	No
			100%		
		299	Thesis Research	8	No
			100%		
Winter	Bio	297	Independent Study	2	No
			100%		
		299	Thesis Research	10	No
			100%		
Spring	Bio	297	Independent Study	3	No
			100%		
		299	Thesis Research	7	No
			100%		

**TEACHING 1983-84**

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	195	Senior Thesis Research	1	No
			100%		
		210	Experimental Plant Ecology	16	No
			100%		
		297	Independent Study	3	No
			100%		
		299	Thesis Research	7	No
			100%		
Winter	Bio	195	Senior Thesis Research	1	No
			100%		
		198	Independent Field Study	1	No
			100%		
		209	Topics in Advanced Plant Sciences	8	Yes

		80%			
		297	Independent Study	5	No
		100%			
		299	Thesis Research	11	No
		100%			
Spring	Bio	100	Plants and Human Affairs	43	No
		100%			
		297	Independent Study	6	No
		100%			
		299	Thesis Research	10	No
		100%			
		301	Supervised Teaching	2	No
		100%			

### TEACHING 1982-83

Quarter	Dept	Sect	Course	Enrolled	Shared?
		<u>% Taught</u>			
Fall	Bio	210	Experimental Plant Ecology	18	No
		100%			
		297	Independent Study	7	No
		100%			
		299	Thesis Research	10	No
		100%			
Winter	Bio	199	Tutorial	2	No
		100%			
		209	Topics in Advanced Plant Sciences	8	Yes
		80%			
		297	Independent Study	5	No
		100%			
		299	Thesis Research	10	No
		100%			
Spring	Bio	100	Plants and Human Affairs	51	No
		100%			
		193	Field Study	1	No
		100%			
		199	Tutorial	3	No
		100%			
		297	Independent Study	2	No
		100%			
		299	Thesis Research	10	No

100%  
 301 Supervised Teaching 2 No  
 100%

**TEACHING 1981-82**

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	210	Experimental Plant Ecology	9	No
			100%		
		297	Independent Study	9	No
			100%		
		299	Thesis Research	1	No
			100%		
Winter	Bio	209	Topics in Advanced Plant Sciences	9	Yes
			80%		
		297	Independent Study	4	No
			100%		
		299	Thesis Research	8	No
			100%		
Spring	Bio	100	Plants and Human Affairs	58	No
			100%		
		193	Field Study	2	No
			100%		
		297	Independent Study	8	No
			100%		
		299	Thesis Research	8	No
			100%		
		301	Supervised Teaching	2	No
			100%		

**TEACHING 1980-81**

(on leave Winter and Spring quarters)

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	210	Experimental Plant Ecology	12	No
			100%		
		297	Independent Study	5	No
			100%		
		299	Thesis Research	5	No
			100%		
Winter	Bio	297	Independent Study	6	No

		100%			
		299	Thesis Research	8	No
		100%			
Spring	Bio	297	Independent Study	7	No
		100%			
		299	Thesis Research	8	No
		100%			

### TEACHING 1979-80

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	210	Experimental Plant Ecology	8	No
			100%		
		297	Independent Study	2	No
			100%		
		299	Thesis Research	3	No
			100%		
Winter	Bio	209	Topics in Advanced Plant Sciences	9	Yes
			80%		
		297	Independent Study	4	No
			100%		
		299	Thesis Research	5	No
			100%		
Spring	Bio	100	Plants and Human Affairs	59	No
			100%		
		297	Independent Study	7	No
			100%		
		299	Thesis Research	3	No
			100%		
		301	Supervised Teaching	3	No
			100%		

### TEACHING 1978-79

(on leave Winter and Spring quarters)

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	195	Senior Thesis Research	2	No
			100%		
		210	Experimental Plant Ecology	12	No
			100%		
		297	Independent Study	3	No

		100%			
		299	Thesis Research	2	No
		100%			
Winter	Bio	297	Independent Study	4	No
		100%			
Spring	Bio	195	Senior Thesis Research	1	No
		100%			
		299	Thesis Research	2	No
		100%			

### TEACHING 1977-78

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	193	Field Study	1	No
		100%			
		210	Experimental Plant Ecology	9	No
		100%			
		297	Independent Study	6	No
		100%			
		299	Thesis Research	7	No
		100%			
Winter	Bio	195	Senior Thesis Research	1	No
		100%			
		199	Tutorial	1	No
		100%			
		209	Topics in Advanced Plant Sciences	9	Yes
		80%			
		297	Independent Study	2	No
		100%			
		299	Thesis Research	11	No
		100%			
	Merrill	182	International Interactions in Science & Biology	20	Yes
		50%			
Spring	Bio	100	Plants and Human Affairs	97	Yes
		75%			
		193	Field Study	2	No
		100%			
		199	Tutorial	3	No
		100%			

297	Independent Study	2	No
100%			
299	Thesis Research	9	No
100%			

### TEACHING 1976-77

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	193	Field Study	1	No
		100%			
		195	Senior Thesis Research	5	No
		100%			
		199	Tutorial	2	No
		100%			
		210	Experimental Plant Ecology	11	No
		100%			
		297	Independent Study	3	No
		100%			
		299	Thesis Research	5	No
		100%			
Winter	Bio	195	Senior Thesis Research	3	No
		100%			
		199	Tutorial	1	No
		100%			
		209	Topics in Advanced Plant Sciences	10	Yes
		80%			
		297	Independent Study	1	No
		100%			
		299	Thesis Research	6	No
		100%			
	Merrill	182	International Interactions in Science & Biology	20	Yes
		50%			
Spring	Bio	100	Plants and Human Affairs	127	Yes
		75%			
		199	Tutorial	3	No
		100%			
		297	Independent Study	1	No
		100%			
		299	Thesis Research	8	No
		100%			

### TEACHING 1975-76

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	102	Plants and Human Affairs	92	Yes
			75%		
		297	Independent Study	3	No
			100%		
		299	Thesis Research	12	No
			100%		
Winter	Bio	297	Independent Study	4	No
			100%		
		299	Thesis Research	12	No
			100%		
	Merrill	182	International Interactions in Science & Biology	16	Yes
			50%		
Spring	Bio	199	Tutorial	1	No
			100%		
		297	Independent Study	5	No
			100%		
		299	Thesis Research	9	No
			100%		

### TEACHING 1974-75

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	193	Field Study	1	No
			100%		
		195	Senior Thesis Research	1	No
			100%		
		299	Thesis Research	1	No
			100%		
Winter	Bio	102	Plants and Human Affairs	86	Yes
			75%		
		209	Topics in Advanced Plant Sciences	5	Yes
			80%		
		299	Thesis Research	7	No
			100%		
Spring	Bio	210	Experimental Ecology	6	No

100%  
 299 Thesis Research 5 No  
 100%

**TEACHING 1973-74**

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	102	Plants and Human Affairs	88	Yes
			75%		
		195	Senior Thesis Research	2	No
			100%		
		199	Tutorial	1	No
			100%		
Winter	Bio	299	Thesis Research	3	No
			100%		
Spring	Bio	299	Thesis Research	5	No
			100%		

**TEACHING 1972-73**

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Fall	Bio	195	Senior Thesis Research	2	No
			100%		
		299	Thesis Research	5	No
			100%		
	Stevenson	144L	Agriculture and Ecology	10	No
			100%		
Winter	Bio	102	Plants and Human Affairs	95	Yes
			75%		
		195	Senior Thesis Research	1	No
			100%		
		299	Thesis Research	5	No
			100%		
Spring	Bio	144	Plant Ecology	45	No
			100%		
		144L	Ecology Lab	19	Yes
			50%		
		193	Field Study	1	No
			100%		
		195	Senior Thesis Research	1	No
			100%		

299	Thesis Research	5	No
100%			

### TEACHING 1971-72

Quarter	Dept	Sect	Course	Enrolled	Shared?
Fall	Bio	102	Plants and Human Affairs	135	Yes
				75%	
		195	Senior Thesis Research	4	No
				100%	
		197	Independent Study	1	No
				100%	
		199	Tutorial	1	No
		100%			
Winter	Bio	299	Thesis Research	9	No
				100%	
		195	Senior Thesis Research	3	No
				100%	
Spring	Bio	210	Chemical Ecology	10	No
				100%	
		299	Thesis Research	10	No
				100%	
		144	Plant Ecology	55	No
		100%			
		144L	Ecology Lab	22	Yes
				50%	
		195	Senior Thesis Research	3	No
				100%	
		199	Tutorial	2	No
				100%	
		299	Thesis Research	10	No
				100%	

### TEACHING 1970-71

Quarter	Dept	Sect	Course	Enrolled	Shared?
Fall	Bio	102	Plants and Human Affairs	57	Yes
				75%	
		199	Independent Study	3	No
				100%	
		299	Thesis Research	3	No
				100%	

Winter	Bio	199	Independent Study	3	No
		100%			
		299	Thesis Research	10	No
		100%			
	Stevenson	50	Ecology of Redwoods	20	No
		100%			
Spring	Bio	144	Plant Ecology	32	No
		100%			
		144L	Ecology Lab	12	Yes
		50%			
		199	Independent Study	2	No
		100%			
		209	Topics in Advanced Plant Sciences	8	No
		100%			
		299	Thesis Research	4	No
		100%			

#### TEACHING 1969-70

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		
Winter	Bio	199	Independent Study	1	No
		100%			
		299	Thesis Research	4	No
		100%			
Spring	Bio	144	Ecology	18	No
		100%			
		196	Tutorial	1	No
		100%			
		199	Independent Study	2	No
		100%			
		210	Experimental Ecology	6	No
		100%			
		299	Thesis Research	2	No
		100%			
	Cowell	42	Plant Ecology	12	No
		100%			

#### TEACHING 1968-69

Quarter	Dept	Sect	Course	Enrolled	Shared?
			<u>% Taught</u>		

Fall	Bio	141	Ecology	5	Yes
		50%			
		196	Tutorial	1	No
		100%			
		299	Thesis Research	5	No
		100%			
	Stevenson		Conservation and Natural Resources	14	No
			100%		
Winter	Bio	111	General Botany	51	Yes
		50%			
		196	Tutorial	1	No
		100%			
		299	Thesis Research	5	No
		100%			
Spring	Bio	199	Independent Study	1	No
		100%			
		299	Thesis Research	5	No
		100%			

### OTHER TEACHING

#### Senior Thesis Students (\* published data later)

Thomas Babb, Joe Bunnell, \*David Crankshaw, \*John Gaskin, \*Jonathan Gershenzon, Lori Howe, John Kirkish, Mario Lowenstein, Phil Madvig, \*Jesse Markman, Hava Rapaport, \*Randy Rice, Elizabeth Rouen, Bill Russell, \* Michael Schumaker, \*Will Stubblebine, Donald Thomas, Jeffrey White.

#### Graduate Students

Susanne Altermann	2002-09 (Ph.D., with L. Goff)
Tom Hofstra	1997-2002 (Ph.D.)
Polly Goldman	1990- (M.A., with D. Letourneau)
Philip Fujiyoshi	1990-2000 (Ph.D., with S. Gliessman)
Yael (Lori) Lachman	1990-93 (M.A.)
Wendy Peer	1989-96 (Ph.D.)
Eugene (Swarup)Wood	1989-95 (Ph.D.)
Raymond Goralka	1988-94 (Ph.D.)
James Paulus	1988-93 (Ph. D., with S. Gliessman)
Katherine Courtney	1988-92 (M.A.)
Jeanette Rollinger	1987-93 (Ph.D.)
Steven Jacquez	1986-89 (M.A.)
Robert Kluson	1986-92 (Ph.D., with S. Gliessman)
Francisco Espinosa-Garcia	1986-91 (Ph.D.)
Francisco Rosado-May	1985-91 (Ph.D., with S. Gliessman)

Martha Rosemeyer	1985-90 (Ph.D., with S. Gliessman)
Erik Feibert	1984-88 (M.A.)
Cynthia Macedo	1982-91 (M.A.)
Gail Fail	1982-90 (Ph.D.)
Matthew Ross	1981-86 (M.A.)
Roberto Figliuolo	1980-85 (M.A.)
George Hall	1980-85 (Ph.D.)
Leo McCloskey	1980-84 (Ph.D.)
Susanne Arrhenius	1977-83 (Ph.D.)
Jason Greenlee	1974-77, 1980-83 (Ph.D.)
Pat Lincoln	1973-77 (Ph.D., with A. Moldenke)
Jack Neff	1973-77, 1982 (Ph.D., with A. Moldenke)
Alan Cunningham	1970-72, 1977, 1983 (Ph.D.)
Rita Belserene	1978-80 (M.A., with L. Fox)
Robert McGinley	1978-80 (M.A.)
Jose Carlos Nascimento	1976-80 (Ph.D.)
Craig Foster	1975-78 (M.A.)
David Lincoln	1973-78 (Ph.D.)
William Stubblebine	1972-78 (Ph.D.)
David Wilson	1968-73, 1975 (M.A.)
Judith Unsicker	1968-74 (Ph.D.)
Y.T. Lee	1968-73 (Ph.D.)
Susan Martin	1968-73 (Ph.D.)
Robert Fisher	1966-69 (M.A.)

### **Postdoctoral Fellows**

Jung He Kim (Korea)	1990-92
Ed Keith	1984-85
Susanne Arrhenius	1983-87
Jinliang Wang (China)	1983-85
Janet Fulton (New Zealand)	1976-78
June Latting	1968-70

### **Doctoral Dissertation Titles**

Susanne Altermann (2009) Geographic Structure in a symbiotic mutualism.

Thomas Hofstra (2003) Distribution, Genetic Diversity, and Compositional Variation of Wetwood Prokaryotic communities within and among Native California *Populus* species.

Phillip Fujiyoshi (1998) Mechanisms of Weed Suppression by Squash (*Cucurita* spp)

- Intercropped with Corn (*Zea mays* L)
- Wendy Peer (1996) the Influence of Phytochrome on Gene Regulation of Lhcb Expression in *Pinus palustris* and on Ecological Responses of Monoterpene Variation and Shade Avoidance in *Sequoia sempervirens* and *Satureja douglasii*.
- Swarup Wood (1995) Loss of Foliar Monoterpenes from *Umbellularia californica* Leaf Litter and Their Influence on Nitrification Potential in Soil Beneath the Trees.
- Raymond Goralka (1994) Monoterpenoid Variation in *Umbellularia californica*, the California Bay Tree: Ecological Relation to Browse Selection by Blacktailed Deer, *Odocoileus hemionus columbianus*.
- Jim Paulus (1993) Contributions of the Cover Crop *Brassica kaber* to the Establishment of apple Trees Under Conversion Management.
- Jeanette Rollinger (1993) Ecological Implications of the Coastal Redwood and Foliar Fungal Endophytic Symbioses
- Robert Kluson (1992) Responses of the Tripartite Bean Symbiosis of *Phaseolus-Rhizobium-Glomus*-Cabbage Interference in an Intercropping System.
- Francisco Espinosa (1991) Studies of the Relation of the Fungal Endophytic Community and Essential Oils in the Leaves of Coastal Redwood (*Sequoia sempervirens*).
- Francisco Rosado-May (1991) Ecological Role of Wild Mustard (*Brassica kaber* (DC) LC Wheeler) in the Management of Soil-Pathogen fungi and Nematodes in a Corn Agroecosystem.
- Martha Rosemeyer (1990) The Effect of Different Management Strategies on the Tripartite Symbiosis of Bean (*Phaseolus* L) with Rhizobium and Vascular Mycorrhizal Fungi in Two Agroecosystems in Costa Rica
- Gail Fail (1990) Ultrastructural Studies of Leaf/Fungus Interactions and Secondary Chemical Production in *Hymenaea courbaril*, a Tropical Leguminous Tree.
- George Hall (1985) leaf monoterpenes of Coast Redwood (*Sequoia sempervirens*) (D. Don) (Engel).
- Leo McCloskey (1984) Leaf Phenolic Compounds in the Tropical Tree Genera *Hymenaea* and *Copaifera*.
- Susanne Arrhenius (1983) Inhibitory Effects of Terpenes and Phenolics from *Hymenaea*

- and *Copaifera* (Leguminosae:Caesalpinioideae) on the Leaf Fungus *Pestalotia* (Deuteromycetes, Melanconiales) in the Neotropics.
- Jason Greenlee (1983) Vegetation, Fire History and Fire Potential of Big Basin State Park, California.
- Alan Cunningham (1983) Trunk Resins in *Hymenaea* (Leguminosae: Caesalpinioideae): Ecological and Paleobotanical Implications of composition, Structure and Aging.
- John Lyle Neff (1982) Studies of the Biology and community Ecology of Solitary Bees
- Pat Lincoln (1980) Phylogeny, Host Plant Relations and Speciation in the Genus *Duforea* (Hymenoptera: Apoidea)
- Jose Carlos Nascimento (1980) Ecological Studies of Sequiterpenes and Phenolic Compounds in leaves of *Copaifera multijuga* Hayne (leguminosae) in a Central Amazonian Rainforest.
- David Lincoln (1978) Environmental and Genetic Control of Monoterpenoid Variation in *Satureja douglasii* (Benth) Briq (Labiatae).
- Will Stubblebine (1978) Ecological and Physiological Aspects of Leaf Resin in *Hymenaea* (Leguminosae:Caesalpinioideae)
- Judith Unsicker (1974) Synecology of *Umbellularia californica* in the Santa Cruz Mountains.
- Yen Tse Lee (1973) A Systematic Study of the Genus *Hymenaea* L. (Leguminosae: Caesalpinioideae, Detarieae).
- Susan Martin (1973) Characterization and comparison of Leaf Pocket Resins Of *Hymenaea* (Leguminosae: Caesalpinioideae)

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