

Jerry D. Davis

Dept. of Geography and Human Env. Studies
San Francisco State University
1600 Holloway Ave.
San Francisco, CA 94132

Phone: (415) 338-2983
Email: jerry@sfsu.edu
Web: <http://bss.sfsu.edu/jdavis>

Education

Ph.D. in Geography, 1987. University of Georgia, Athens, Georgia (res. 1982-1985).

Coursework concentrated in geomorphology, physical and techniques.
Thesis: *The origin of arcuate sand ridges in the Okefenokee Swamp*. 288 pp.

M.A. in Geography, 1982. University of Georgia, Athens, Georgia (res. 1978-1982).

Coursework concentrated in geomorphology, physical and techniques.
Thesis: *Karst geomorphology of Upper Sinking Cove, Franklin County, Tennessee*. 174 pp.

A.B. cum laude in Geography, 1976. Georgia State University, Atlanta, Georgia (1973-1976).

Coursework concentrated in cartography.

Technical Training

Environmental Systems Research Institute, Redlands, Calif.:

ARC/INFO Training, 11-22 January 1988;

Programming with Avenue, 25-27 October 1995;

Using GRID with Arc/Info, 4-8 December 1995;

Working with the ArcView Spatial Analyst, 13-15 January 1997;

Using ARC/INFO ODE with Visual Basic, 6-7 July 1998.

Programming ArcInfo with VBA, 10-14 July 2000.

Introduction to Geoprocessing Scripts using Python. 14-15 October 2004.

C.S.U. Northridge Seminars: **Mapping on the Macintosh**, Feb. 1988 & 1989.

San Diego State University: **GIS/Digital Image Processing**, Feb. 1990.

Professional Experience

San Francisco State University: San Francisco, CA (Aug. 1985 - present)

Full-time Lecturer, 3 year appt., Dept. of Geography (Aug. 1985 - June 1988)

Assistant Professor, Dept. of Geography (Aug. 1988 - 1994)

Associate Professor, Dept. of Geography (Aug. 1994 – 2002)

Professor, Dept. of Geography (Aug. 2002 – present)

Director, Multidisciplinary GIS Center (1988-2003), Institute for Geographic Information Science (2003-present).
Administered research activities, projects.

Director, CSU GIS Specialty Center (1995 - present).

Directed program with participation from 20 subscribing CSU campuses, including software site licenses, a training program, workshops, and intercampus curricular development.

Director, GIS Certificate Program, a College of Extended Learning Professional Development Certificate Program (1995 - present). Planned curriculum and course offerings, consulted with Advisory Board and course instructors.

PC-Help: Athens, Georgia (1984).

Microcomputer Consultant, Field Technician, Special Geography consultant.

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Worked closely with University clients at all levels in recommending specific hardware/software systems.

Claude Terry and Associates, Inc., Atlanta, Georgia (1976-78).

Cartographer, Geographer.

Environmental/Energy Consulting.

Southeastern Expeditions, Inc.: Clayton, Georgia (seasons 1976-1979,1983).

Whitewater River Guide, Trip Leader, Naturalist.

Chattooga (GA-SC), Nantahala (NC), Ocoee (TN), and Gauley (WV) Rivers.

San Pedro Creek Watershed Coalition, Pacifica, California.

President, 1999- 2005.

Honors and Grants

Awards

Georgia State University Department of Geography, *Most Outstanding Senior in Geography*, 1976.

California Geographic Information Association, *Excellence in GIS Education*, presented at an awards banquet, 3 March 2000.

Grant Awards

National Science Foundation, 1984-85. Study of arcuate sand ridges of the Okefenokee Swamp. Part of Okefenokee Ecological Investigations. \$18,000.

CSU Lottery Discretionary Funds, 1986. Field equipment.

Academic Computing Enhancement (ACE) Institute (CSU), San Francisco State University, and Environmental Systems Research Institute, 1987-90 Establishment of the Multidisciplinary Geographic Information Systems Center in the School of Behavioral and Social Sciences. Funded full-time project directorship, purchase of ARC/INFO software for SFSU and CSU Northridge, development of GIS lab in the School of BSS, and full-time technical support. Three phases 1987-1990: \$69,500, \$75,000, \$50,000.

CSU Lottery Discretionary Funds, 1989. Computerized Classroom Map Facility. \$15,000.

1991 CSU Research, Scholarship, and Creative Activity Program Minigrant. \$3,000.

1993 CSU Research, Scholarship, and Creative Activity Program Minigrant: \$1,900.

1994 CSU Academic Information Resources Council project grant: *Bridging the GIS Gap: Supporting Entry-Level Usage of Geographic Information Systems in the Classroom*: \$23,300. With Frank Gossette, CSU Long Beach.

State Regional Water Quality Quality Control Board, 1999. \$60,000 for Geomorphic Assessment, GIS Mapping, Vegetating Mapping, Public Education and Outreach, and Habitat Restoration. For San Pedro Creek Watershed Coalition and City of Pacifica. Written with Paul Jones, EPA, and Janet Clark, City of Pacifica Department of Public Works.

National Fish and Wildlife Foundation, 1999. \$67,000 for Invasive Plant Management and Habitat Restoration. For San Pedro Creek Watershed Coalition and City of Pacifica. Written with Paul Jones, EPA, and Janet Clark, City of Pacifica Department of Public Works.

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California Department of Fish and Game, 2000, \$74,900 for watershed assessment, leading to development of a habitat restoration plan for steelhead. For San Pedro Creek Watershed Coalition and City of Pacifica. Written with Paul Jones, EPA, and Janet Clark, City of Pacifica Department of Public Works.

Stormwater Pollution Prevention Program (STOPPP), 2001, \$2,350 for *Watershed Education Program* for San Pedro Creek Residents.

California Department of Fish and Game, 2001, \$47,347 for *Conservation and Recovery of Ione Endemic Plants*. Co-P.I. with B. Holzman, Dept. of Geography & Human Environmental Studies, SFSU.

SFSU Center for the Enhancement of Teaching, *Transfer of Technology Enhanced Course Delivery Initiative Award*. \$5000. With C. Bettinger, R. DeLeon, R. Pinderhughes, and R. LeGates. 2001.

California State Water Resources Control Board, 2003-04. \$79,000 for *San Pedro Creek Watershed Sediment Source Analysis*, EPA 205(j) program.

California State Water Resources Control Board, 2003-2007. \$401,000 for *Microbial Source Tracking of San Pedro Creek*.

Institute of Museum and Library Services. *2007 Conservation Project Support/GIS Data Model for Botanical Gardens*. Subaward Agreement # 06002355-01 with Univ. of California, Davis. \$18,000. SFSU P.I.

California Department of Transportation. 2007-2008. *Habitat Connectivity and Wildlife Movement Synthesis*. \$68,090. SFSU P.I.

Low Income Investment Fund: *San Francisco Child Care Information System*. P.I.

2007: \$12,413

2008: \$20,160

2009: \$6,000

2010: \$21,840

South Bay Salt Pond Restoration Project. *Pre-restoration Assessment of Mudflat Foraging Habitat: Shorebird Carrying Capacity*. May 2009 - Apr 2011. \$55,000 graduate fellowship for Ariel Rowan.

U.S.D.A. Forest Service, Los Padres National Forest. Jan-Sept 2011. *Terrestrial Ecological Units Inventory*. \$23,749. P.I.

Professional Activities

Session Chair at Professional Meetings:

Geomorphology II: River Channel Geometry Processes. Annual Meetings of the Association of American Geographers, Phoenix, Arizona, 6-10 April 1988.

Geomorphology: Lake and Stream Sedimentology. Annual Meetings of the Association of American Geographers (AAG), Baltimore, Maryland, 19- 22 March, 1989.

Geomorphology: Glacial. Annual Meetings of the Association of American Geographers, Miami, Florida, 15 April 1991.

Soils and Soil Erosion. Annual Meetings of the Association of American Geographers, Boston, Massachusetts, 28 March 1998.

Invited Panelist:

GIS and Education Panel Session. California Mapping Conference, San Jose, California, 5-8 October 1988.

GIS Education and Training Panel Session. Bay Area Automated Mapping Association, 20 March 1997.

Challenges and Accomplishments of Master's Granting Institutions. Annual Meetings of the Association of American Geographers, Seattle, Washington, April 12-16, 2011. Panel Session April 15.

Special Presentation and Tour

Western Association of Map Libraries Meeting: 13-14 May 1993.

"The geographic information system as a map library tool"

Conference Participant/Delegate:

Annual Meetings of the Association of American Geographers.

Louisville, 1980	Phoenix, 1988	Miami, 1991	Portland, 1987
Baltimore, 1989	San Diego, 1992	San Francisco, 1994	Boston, 1998
Honolulu, 1999	San Francisco, 2007	Boston, 2008	

Annual Meetings of the Association of Pacific Coast Geographers.

Chico, 1990
Fairbanks, 2008

Southeastern Division, Association of American Geographers. Nashville, November 1979.

Eighth International Congress of Speleology (International Union of Speleology): Bowling Green, Kentucky, July 1981

Tennessee Karst Conference: Sewanee, Tenn, May 1981.

National Speleological Society Annual Conference

Bowling Green, Kentucky, July 1981
Yreka, California, July 1990

GIS '87 (Sponsors: American Society of Photogrammetry and Remote Sensing, American Congress of Surveying and Mapping): San Francisco, Nov. 1987.

GIS/LIS Annual Conference and Exposition (Sponsors: Association of American Geographers, American Congress of Surveying and Mapping, AM/FM International, American Society of Photogrammetry and Remote Sensing, and URISA): Minneapolis, Nov. 1-4, 1993.

Syllabus '96, Technology Exhibits and Seminars, Sonoma State University, 22-23 July 1996.

Environmental Systems Research Institute International Conference,

Palm Springs: 1988, 1989, 1990, 1991, 1992, 1995, 1996, 1997;

San Diego: 1998, 1999, 2000, 2001, 2002, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.

Professional Soil Science Association of California annual meeting, Clear Lake, March 1997.

University Consortium for Geographic Information Science, Annual Assembly. Delegate for California State University.

Park City, Utah, 24-28 June 1998.

Jackson Hole, Wyoming, 28 June – 1 July 2005.

Vancouver, Washington, 28 June – 1 July 2006.

Yellowstone, Wyoming, 28 – 30 June 2007.

Minneapolis, Minnesota, 23 – 24 June 2008.

Santa Fe, New Mexico, 22-23 June 2009.

Friends of Karst – International Geological Geological Correlation Program Project 379: *Karst Processes and the Global Carbon Cycle.* Bowling Green, Kentucky, 23-25 September 1998.

The Second Western Regional Urban Streams Conference. San Luis Obispo, California, 11-13 April 1999.

Organization & Leading of Professional Field Trips

Glaciation and Hydraulic Gold-Mining Sediment in the Bear and South Yuba Rivers, Sierra Nevada, April 1-3, 1994. Association of American Geographers Annual Meetings, San Francisco. With L. Allan James.

Membership in Professional Societies & Organizations

Association of American Geographers

Geological Society of America

Cave Research Foundation

National Speleological Society

Bay Area Automated Mapping Association

Community Organizations

San Pedro Creek Watershed Coalition. Founding member and President (1999-present). See <http://pedrocreek.org>.

State Committee Work

State of California **GIS Technical Advisory Committee -- Digital Elevation Model** Sub-Group, 1992-93

State of California **GIS Technical Advisory Committee -- Soils and Geology** Sub-Group, 1992-93

State of California **GIS Council.** University Representative 2006-present.

Workshops and Training Courses Organized

1988 **Geographic Information Systems Workshop** for CSU Faculty. 25-26 June, SFSU GIS Center.

Multidisciplinary GIS Center Open House for San Francisco State University. 9-10 March 1989.

1989 **Geographic Information Systems Workshop** for CSU Faculty. 19-23 June, SFSU GIS Center.

1990 **Geographic Information Systems Workshop** for CSU Faculty. 18-23 June, SFSU GIS Center.

Geographic Information Systems Training Course for local government agencies. 5-10 August, 1991, SFSU GIS Center.

1994 **Geographic Information Systems Workshop** for CSU Faculty. 6-10 June, SFSU GIS Center.

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1996 **GIS for Libraries (CSU)** for CSU librarians. 17-18 July, SFSU GIS Center.
<http://www.sfsu.edu/~gis/CSU/workshop/lbwksh96.htm>

1997 **GIS for Environmental Analysis.** for CSU faculty. 18-20 August, SFSU GIS Center.

1998 **Integrating GIS in the University Curriculum,** for CSU faculty. 19-20 August, SFSU GIS Center and Geographic Analysis Teaching Laboratory. <http://www.sfsu.edu/~gis/CSU/workshop/workshop98.htm>.

1999 **CSU GIS Data Conference,** for CSU faculty. 11-12 February 12. SFSU GIS Center and Geographic Analysis Teaching Laboratory. <http://www.sfsu.edu/~gis/CSU/dataschedule.htm>.

Consultant

Joint Doctoral Program in Geography between the University of California, Santa Barbara, and San Diego State University. For the Trustees of the California State University. 1989.

Invited Program Consultant for **Geographic Information Systems at Sonoma State University.** 21 February 1991.

Invited Program Consultant for **Geographic Information Systems at American River College.** Fall 1996.

GIS Consultant, **San Francisco Natural Areas Program,** City and County of San Francisco Recreation and Parks Department, 1997-1999.

GIS and Geomorphologist Consultant, **San Pedro Creek Watershed Assessment.** San Pedro Creek Watershed Coalition, City of Pacifica, 1998-1999.

GIS Consultant, **Brisbane Open Space Committee.** June, 2000.

Newspaper, Periodical and Television Interviews

Rol Risska. *INSIDE San Francisco State University.* Oct./Nov. 1988 issue.

Rol Risska. *Stateline.* Spring 1996 issue.

Jerry Sprecher, CSU Center for Innovative Programs. For video: *Computing and Communications Resources in The California State University.* Dec. 1988.

The *Register.* SFSU Academic Computing Newsletter. Spring, 1990.

Article on GIS in IBM's RS/6000 User Journal, 1991.

Chris Miller, *Coastline,* for television special on San Pedro Creek Watershed. 18 May 2000.

Pacifica Currents for television special on San Pedro Creek Watershed. 4 April 2001.

Guest Lectures

"Computers in Cartography" Geog 606: Fall 1986, 1987, 1988, 1989, 1990, 1991

"Geographic Information Systems" Geog 203: Fall 1987, Spring 1988. Geog 690: Fall 1989, 1990.

"The Use of Geographic Information Systems in Public Administration", for Masters in Public Administration program., 18 March 1993.

"The History of Exploration in the Longest Cave: Mammoth Cave, Kentucky" for Geog 810 (Geographic Exploration Seminar, John Westfall), Spring 1992.

"GIS resources", PA 765 Public Sector Information Mgmt. class. (LeGates), 8 October 1998.

"The Use of GIS for Ecological Stewardship" for Mike Vasey's Ecological Stewardship (Biol 314) class, 9 September 1999.

Campus Special Presentations Organized

Slides and the Slide of Devils Slide. Special Presentation and Tour of the slide area with CalTrans Geologist Joan Van Velsor, 20 April 1995. With Ray Pestrong, Geology.

University Committees

Department of Geography and Human Environmental Studies

Curriculum Committee, 1987-88, 1988-89,

Curriculum Committee Chair, 1991-92.

Techniques Committee Chair, 1989-96, 1998-01, 2007-08, Member 2002-07.

Retention, Tenure and Promotion Chair, 2003-08.

College of BSS

Research Committee, 1996.

Methods & Techniques Committee, 1996-2001.

Methods & Techniques Committee Chair, 1996-2000.

University

University Presidio Planning Committee, 1989-1992.

Public Research Institute Executive Committee, 1989.

Institute for Geographic Information Science (and predecessor Multidisciplinary GIS Center), 1988-2007.

California State University

CSU Academic Information Resources Council, 1995-2001, as CSU GIS Specialty Center Representative.

CSU ACCESS Subcommittee (Specialty Centers and Discipline Councils), 1995-2001.

CSU GIS Specialty Center Director, 1988-present.

Professional Research, Publications, and Presentations

Journal Articles

- Davis, J. D. (1992). Map viewer. *Professional Geographer* 44(1): 104-106.
- Davis, J. D., and G. A. Brook (1993). Geomorphology and hydrology of Upper Sinking Cove, Cumberland Plateau, Tennessee. *Earth Surface Processes and Landforms* 18: 339-362.
- Davis, J. D. (1996). Evidence for Plio-Pleistocene polygenetic development of Okefenokee arcuate ridges. *Southeastern Geology* 36 (2): 47-64.
- Davis, J. D., and G. A. Davis (2001). A microcontroller-based data-logger design for seasonal hydrochemical studies. *Earth Surface Processes and Landforms* 26: 1151-1159.
- Davis, J. D., R. Kiefer, and P. Amato (2001). Seasonal soil CO₂ variations in a subalpine karst landscape, Marble Mountains, California. *Zeitschrift für Geomorphologie N.F.* 45(3): 385-400.
- Davis, J. D., and F. Serefidin (2004). The Marble Mountains of Northern California. *Alpine Karst 2004*, Vol. 1: 114-120.
- Davis, J. D. (2004). Watershed sediment source analysis: integrated GIScience and field-based analysis. *CSU Geospatial Review*. 2: 4.
- Ivanetich, K. M., P. Hsu, K. M. Wunderlich, E. Messenger, W. G. Walkup IV, T. M. Scott, J. Lukasik, J. D. Davis (2006). Microbial source tracking by DNA sequence analysis of the *Escherichia coli* malate dehydrogenase gene. *Journal of Microbiological Methods* 67: 507-526.
- Sas, R. J., L. S. Sklar, L. S. Eaton, J. D. Davis (2008). A method for developing regional road-fill failure hazard assessments using GIS and virtual fieldwork. *Environmental & Engineering Geoscience*, 14(3), August 2008, pp. 221-229.
- Grove, K., L. Sklar, A. M. Scherer, G. Lee, J. Davis (2010). Accelerating and spatially-varying crustal uplift and its geomorphic expression, San Andreas Fault zone north of San Francisco, California. *Tectonophysics* 495 (2010) 256-268.
- Davis, J. (2011). Geoprocessing methods for hypsometry, morphometry and spatial sampling. *CSU Geospatial Review* 9: 7.
- Powell, C., L. Blesius, J. Davis, F. Schuetzenmeister (2011). Using MODIS snow cover and precipitation data to model water runoff for the Mokelumne River Basin in the Sierra Nevada, California (2000-2009). *Global and Planetary Change* 77 (2011) 77-84.
- Harvey, B. J., B. A. Holzman, J. D. Davis (2011). Spatial variability in stand structure and density-dependent mortality in newly established post-fire stands of a California closed-cone pine forest. *Forest Ecology and Management* 262 (2011) 2042-2051.

Full Articles in Conference Proceedings

- Davis, J. D., and G. A. Brook (1979). Paleoenvironmental implications of deposits in Red Spider Cave, Northwest Georgia. *Conference Reviewed Papers* 34th Ann. Mtg., SE Div., Assoc. of American Geographers (Nashville, Tenn.): 12. 1979.
- Davis, J. D., and G. A. Brook (1981). Hydrology and water chemistry of Upper Sinking Cove, Franklin Co., Tenn. *Proceedings* 8th Intl. Cong. of Speleology, Intl. U. of Speleol. (Bowling Green, Ky.) Vol. I: 38-41. 1981.
- Davis, J. D. (1988). The challenge of university GIS education. *Technical Papers*, 1988 California Mapping Conference.

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Davis, J. D., and D. Dwyer (2001). Analyzing significant natural areas in San Francisco parks. *ESRI Library, Proceedings -- Professional Papers*. Environmental Systems Research Institute International User Conference.

Journal Editor Columns

Davis, J. D. (2003). From the Director. *CSU Geospatial Review* 1: 2.

Davis, J. D. (2004). From the Director. *CSU Geospatial Review* 2: 2.

Davis, J. D. (2005). GIScience in the CSU: more than surviving. *CSU Geospatial Review* 3: 2.

Davis, J. D. (2006). The increasing significance of education in GIScience. *CSU Geospatial Review* 4: 2.

Davis, J. D. (2007). Bringing Geographic Information Science to the community. *CSU Geospatial Review* 5: 2.

Davis, J. D. (2008). Geographic information science: the new “Dismal Science”. *CSU Geospatial Review* 6: 2.

Davis, J. D. (2009). Lean times and opportunities. *CSU Geospatial Review* 7: 2.

Davis, J. D. (2010). Offshore research. *CSU Geospatial Review* 8: 2.

Davis, J. D. (2011). GIScience comes ashore. *CSU Geospatial Review* 9: 2.

Technical Reports

Davis, J. D. (1977). *Statistical Analysis of Urbanization Parameters to Determine the Cahaba River's Potential for Wild and Scenic River Status*. Atlanta: Claude Terry & Associates, for U.S. Forest Service.

Terry, C., J. Davis, and others (1977). *Environmental Baseline, Land Use and Growth Projections for the Birmingham Four County Area*. Atlanta: Claude Terry & Associates, for U.S. Environmental Protection Agency and Birmingham Regional Planning Commission.

Davis, J. D. (1977). *Population and Employment Projections for Cherokee, Dallas, Floyd, and Winneshiek Counties, Iowa*. Atlanta: Claude Terry & Associates, for Wainwright Engineering Company, Inc.

Terry, C., J. D. Davis, and others (1977) *Visual Inventory of Potential Strip Mining Areas North of Tuscaloosa, Alabama*. Atlanta: Claude Terry & Associates, for U.S. Bureau of Land Management.

Terry, C., J. D. Davis, and others (1978). *Sewanee, Tennessee, 201 Facilities Plan Environmental Impact Statement*. Atlanta: Claude Terry & Associates, for U.S. Environmental Protection Agency.

Davis, J. D. (1987). The origin of arcuate sand ridges in the Okefenokee Swamp. *Okefenokee Ecosystems Investigation Technical Report* 21. Dept. of Zoology, Institute of Ecology, University of Georgia. 288 pp.

Davis, J. D., V. Matuk, N. Wilkinson, and C. Chan (2002). *San Pedro Creek Watershed Assessment and Enhancement Plan*. Pacifica: San Pedro Creek Watershed Coalition, for California Department of Fish and Game.

Davis, J. D., S. Sims, S. Pearce, L. McKee, S. Shonkoff, S. Holmes (2004). *San Pedro Creek Watershed Sediment Source Analysis*. San Francisco State University and City of Pacifica, for California State Water Resources Control Board, E.P.A CWA 205(j).

Davis, J. D., C. Chan, V. Matuk, K. Ivanetich (2007). *San Pedro Creek Bacterial Analysis Report*. San Pedro Creek Watershed Coalition, for California State Water Resources Control Board Agreement 03-096-552-0. 72 pp.

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Davis, J. D., J. Cohen, A. Pettler, M. Rondeau (2008). *Habitat Connectivity and Wildlife Movement Synthesis of Baseline Information and Data Aggregate Compilation*. Report to California Department of Transportation and California Department of Fish and Game. 12 pp.

Davis, J. D., A. W. Davis, and B. J. Harvey (2010). *Pedro Point Headlands 1941 to 2010: A Preliminary Study Using Historical Remote Sensing and Dendrochronology*. Pacifica Land Trust and California Coastal Conservancy. 13 pp.

Professional Papers and Posters Presented, with Published Abstracts

- Davis, J. D. and G. A. Brook (1979). "Paleoenvironmental Implications of Deposits in Red Spider Cave, Northwest Georgia." with. 34th Annual Meeting, SE Division, Assoc. of American Geographers, 18-20 November, Nashville, Tennessee.
- Davis, J. D. (1981). "Karst Hydrology and Cavern Development in Upper Sinking Cove, Franklin Co., Tennessee." Tennessee Karst Conference, 2 May, Sewanee, Tennessee.
- Davis, J. D. and G. A. Brook (1981). "Hydrology and Water Chemistry of Upper Sinking Cove, Franklin County, Tennessee." 8th International Congress of Speleology, Intl. Union of Speleology, 18-24 July, 1981, Bowling Green, Kentucky.
- Davis, J. D. (1988). "Arcuate Sand Ridges of the Okefenokee Swamp." Annual Meetings of the Association of American Geographers, Phoenix, Arizona, 6-10 April.
- Davis, J. D. (1989). "The University's Role in Geographic Information Systems" California GIS Society, December 7.
- Davis, J. D. (1990). "Geographic Information Systems for Biological Research." Invited Speaker, Association of Biologists in Computing, Sonoma State University, 19 January.
- Davis, J. D. (1990). "What is GIS Technology?" Lead Speaker at *GIS: A Tool For Local Governments*. Seminar. Local Government Commission. California State Capitol, Sacramento, 19 October.
- Davis, J. D. (1991). "Surface and Network Analysis of Karst" Annual Meetings of the Association of American Geographers, Miami, Florida, 15 April.
- Davis, J. D., and A. Sears (1992). "Investigations in the Marble Mountains Karst of Northern California" Annual Meetings of the Association of American Geographers, San Diego, California, 19 April.
- Davis, J. D. (1993). "Natural resource inventory and modeling in Pacific coast terrestrial and estuarine environments" GIS/LIS Annual Conference and Exposition, Poster Session, November 1-4.
- Serefiddin, F., J. D. Davis (1998). "Seasonality of solution processes in the Marble Mountains sub-alpine karst." Annual Meetings of the Association of American Geographers, Boston, Massachusetts, 27 March, 1998. With Feride Serefiddin.
- Davis, J. D., P. Amato, and R. Kiefer (1998). "Seasonal soil CO₂ variations in a sub-alpine karst landscape, Marble Mountains, California" Annual Meetings of the Association of American Geographers, Boston, Massachusetts, 27 March.
- Davis, J. D., P. Amato, and R. Kiefer (1998). "Snowmelt-initiated CO₂ cycles in a dry-summer subalpine landscape, Marble Mountains, California." Joint meeting of Friends of Karst and The International Geological Correlation Program Project 379: *Karst Processes and the Global Carbon Cycle*. 23 September.
- Serefiddin, F., and J. D. Davis (1999). "Geomorphic Process Studies in the Marble Mountains Subalpine Karst of Northern California" Annual Meetings of the Association of American Geographers, Honolulu, Hawaii, 24 March.
- Davis, J. D., and D. Dwyer (2001). "Analyzing Significant Natural Resource Areas in San Francisco Parks." Environmental Systems Research Institute International User Conference. San Diego, California, 9-13 July.
- Scherer, A., K. Grove, and J. Davis (2003). "GIS Analysis of Quaternary Marine Terraces, Point Reyes Peninsula, California". Geological Society of America Annual Meeting, Seattle. 2-5 November, 2003.
- Davis, J. D. (2007). "Biogeomorphic Assessment and Salmonid Habitat Enhancement in a Suburban Landscape: San Pedro Creek Watershed." San Francisco, 17-21 April. Presented April 20.

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- Davis, J. D. (2008). "Fluvial geomorphic adjustments in a flood control / wetland restoration project." Annual Meetings of the Association of American Geographers, Boston, Massachusetts, 15-19 April 2008. Presented 17 April.
- Davis, J. D., A. Thompson, and A. Oliphant (2008). Runoff and erosion under eucalyptus and oak paired woodland sites near San Francisco, California. Annual Meetings of the Association of Pacific Coast Geographers, Fairbanks, Alaska, Presented 9 October 2008.
- Hoorn, J., J. Davis, L. Blesius, M. Kramer (2009). Sediment dynamics of an invasive species: stream channel response to Tamarisk infestation. Poster, Association of American Geographers Annual Meetings, Las Vegas, NV, 22-27 March 2009.
- Feigelson, L., C. Prentice, K. Grove, J. Caskey, J. Davis (2010). Slip rate on the San Andreas Fault, San Francisco Peninsula, California. Poster, Geological Society of America Cordilleran Section and Pacific Section, American Association of Petroleum Geologists. 27-29 May 2010.
- Burgett, D., L. Blesius, J. Davis (2010). An object-based method for estimation of river discharge from remotely-sensed imagery. Poster, American Geophysical Union, San Francisco, Dec. 13, 2010.
- Davis, J.D., A. W. Davis, B. Harvey (2011). Motorcycles and forest expansion: Applying historical remote sensing and dendrochronology to understand LULC change at Pedro Point Headlands, San Mateo County, California, 1941 to 2010. Annual Meetings of the Association of American Geographers, Seattle, Washington, April 12-16, 2011. Presented April 12.

Book Reviews

IBM Earth Science Series of Tutorials, by Rita Haberlin and Pat Kulda

1. "Continental Drift", reviewed in January 1993
2. "Sea-Floor Spreading", reviewed in January 1993
3. "Plate Tectonics", reviewed in June 1993

Heather Kennedy (2008). *Data in Three Dimensions: A Guide to ARCGIS 3D Analyst*. John Wiley.

Esri (2010). *Agent Based Modeling in ArcGIS*. Esri Press.

Field Guides

- James, L. A., and J. D. Davis (1994). *Glaciation and Hydraulic Gold-Mining Sediment in the Bear and South Yuba Rivers, Sierra Nevada*. Field Trip Guide, April 1-3, 1994. Association of American Geographers Annual Meetings, San Francisco.
- Davis, J. D., and A. Oliphant (2007). *Coastal erosion, surfing, and watersheds*. Field Trip Guide, 21 April 2007. Association of American Geographers Annual Meetings, San Francisco.
- Davis, J. D., and L. Blesius (2011). *Coastal erosion*. Field Trip Guide, 29 September 2011. Association of Pacific Coast Geographers Annual Meeting, San Francisco.

Lectures, Colloquia, and Special Presentations

"Caves of Belize." Athens Speleological Society, November, 1979.

"Karst of Belize." UGA Geomorphology Interest Group, January 1980 meeting.

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- "Exploration and Research in the Longest Cave in the World: the Flint-Mammoth Cave System." Athens Speleological Society, 4 May 1981, Athens, Georgia.
- "The Caves and Karst of Upper Sinking Cove, Franklin County, Tennessee." Department of Geography Colloquium, 24 May 1981, University of Georgia.
- "What Pogo Never Told You (about the geomorphic history of the Okefenokee Swamp)." 1987 Sonoma State (CSU) Geography-Anthropology Series.
- "Geographic Information Systems." Sonoma State University Spring 1989 Colloquium Series.
- "Caves, Karst, and Applied Geomorphology" Distinguished Visiting Scholars Lecture, CSU Sacramento Geology and Geography Departments, 10 May 1990.
- "The San Andreas Fault System and the Geomorphic and Land Use History of Mussel Rock" Field Interpretation and Lecture, given at Mussel Rock, Daly City, California, for Human Geography Field Course, Department of Geography, University of British Columbia., 12 May 1993.
- "Geomorphological Research in the Marble Mountains Wilderness, California". Invited Speaker, Diablo Grotto, National Speleological Society, 10 October 1996.
- "Studies conducted by the San Pedro Creek Watershed Coalition". Pacifica City Council. 11 October 1999.
- "A Geographic Information System for San Pedro Creek Watershed". San Pedro Creek Watershed Coalition general meeting. 17 March 2000.
- "Developing a GIS for San Bruno Mountain". City of Brisbane Open Space Committee, 1 June 2000.
- "Watershed Assessment in San Pedro Creek Watershed". San Mateo County Stormwater Pollution Prevention Program. 30 August 2001.
- "San Pedro Creek Watershed Sediment Source Analysis". San Pedro Creek Watershed Coalition, 19 November 2003.
- "San Pedro Creek Sediment Source Analysis and Treatment Prioritizations." San Pedro Creek Watershed Coalition, 22 April 2004.
- "Historical Perspective on San Pedro Creek Watershed." Pacifica Historical Society, 5 March 2006.
- "San Pedro Creek Watershed Erosion Issues". Bank Stabilization Workshop, San Pedro Creek Watershed Coalition, Pacifica, CA. 19 November 2005, 21 October 2006.

Works in Progress

- Environmental controls on solution chemistry in the Marble Mountains subalpine karst of Northern California. In revisions for submission to *Geomorphology* (Elsevier). With Feride Serefiddin.
- Spatial and seasonal variation of water quality in a coastal urban stream. In revisions for submission to *Environmental Management*. With V. Matuk, SFSU, & B. Halloran, UCSF.
- The extent and causes of bed and bank erosion along San Pedro Creek. Fieldwork 75% done, first interim report completed. With Laurel Collins and Paul Amato.

Project Director, Institute for Geographic Information Science, SFSU

- Study of species migration in Mendocino old-growth redwood forest, 1989, in association with California Department of Forestry. With R. Askevold, M. Hornick, A. Maxwell, N. Suzuki (SFSU Geography).
- Soil Conservation Service Non-Point Pollution model study, 1989-1990. With M. Whiting (USDA Soil Conservation Service); R. Bathrick, L. Konde, A. Richardson (SFSU Geography)
- Montezuma Slough Study, 1992-93, in association with Wetlands Research Associates. With M. Josselyn (Wetlands Research Associates); L. Konde, N. Leahy, R. MacKay, S. Skartvedt, D. Weinstein, A. Galo (SFSU Geography)
- Bolsa Chica Wetlands Inventory, 1991-92, in association with Wetlands Research Associates. With M. Josselyn, M. Los Huertos (SFSU Romberg Tiburon Center), M. Campbell (Michael Brandman Associates), L. Konde, A. Richardson, R. Bathrick (SFSU Geography)
- Crystal Springs Watershed Analysis, 1989, for San Francisco Water Department, in association with CA Dept. of Fish & Game, with R. Bathrick, L. Cosby, M. Fitzgerald, C. Gavette, A. Richardson, W. Small (SFSU Geography) ; T. Lupo (CA Department of Fish and Game)
- San Francisco Presidio Rare Species Habitat Analysis, 1989. In association with California Dept. of Fish & Game.
- Study of Commute Patterns in Emeryville, California, 1989. M. Hitchcock, C. Neishi, S. Scott (SFSU Geography)
- Santa Cruz Mountains Biodiversity Study (1994). M. Vasey (SFSU Conservation Biology), R. MacKay (SFSU Geography); P. Foschi (SFSU Geography)

Consultant, Institute for Geographic Information Science Projects, SFSU

- Central African Elephant Survey, 1988, International Union for Conservation of Nature and Natural Resources (IUCN), with P. Foschi (SFSU Geography)
- Burrowing Owl Census, 1991-92, for D. DeSante (Institute of Bird Populations). R. Winkler (SFSU Geography)
- Bay Area Housing Affordability Study. LeGates (SFSU Urban Studies), Randlett, Scott (SFSU Geography)
- Demographic Analysis of Pre-industrial France. G. W. Skinner (Stanford University)
- Epidemiological Study of Mediterranean Islands, J. Webster (SFSU Geography)
- Greenbelt Risk Assessment, J. Sayer (Greenbelt Alliance), M. Odaya (SFSU Geography)
- Index of Gerrymandering, G. Geisler (SFSU Political Science) & C. Henley, A. Richardson, R. Winkler (SFSU Geography)
- Geocology of West Marin County. D. Mustart (SFSU Geology), E. Schwalen (SFSU Interdisciplinary Studies)
- State of the Bay Atlas (for The Oceanic Society). R. Askevold, R. Crawford, M. Lacey, J. Webster (SFSU Geography)
- "Trails on the Water" Project. K. Van Velsor (Coastal Advocates); L. Konde, D. Weinstein (SFSU Geography)
- Southwest Bioregion Scoping Project. O. Pollack, R. Cox (The Nature Conservancy of California); D. Gladish, M. Norelli, L. Konde (SFSU Geography)
- Presidio Natural Vegetation Study. M. Vasey (SFSU Conservation Biology), M. Semenov (SFSU Geography)

Completed M.A. Geography and M.S. GIScience Theses:

- Amato, Paul, *Effects of urbanization on storm response in the North Fork San Pedro Creek*. (Chair) 2003.
- Amezcuca, Sylvia, *Gaps and links: San Francisco Garter Snake habitat assessment priorities*. (Chair) 1998.
- Askevold, Ruth, *Interpreting historical images to reconstruct past landscapes in the Santa Clara Valley*. 2005.
- Bauer, Jon D. *Potemkin Creek: I can't believe it's not nature*. 2008.
- Brigham, Charles, *Spatial variability of rainfall, Westside San Francisco drainage distinct*. 2006.
- Camp, Christy, *Golden Gate Heights: a biogeographical land use history*. 2006.
- Creed, Graydon, *The Specter of Depletion: Drought Conditions in the Southern San Joaquin Valley, 1928-1934*. 2011
- Dartnell, Peter, *Applying remote sensing techniques to map seafloor geology/habitat relationships*. (Chair) 2000.
- Depman, Jeanne, *Examining An Urban Water Source: Groundwater Characteristics of San Francisco's Lobos Creek* (Chair) 2009.
- Dull, Robert, *Late Holocene paleoecology and historic grazing impacts, southern Sierra Nevada, California*. (Chair) 1995.
- Duran, Guillermo, *Assessing the habitat fragmentation of socioeconomically important tree species in Costa Rica*. 2010.
- Dwyer, Debra, *Integrating GPS with GIS to monitor rare plants in San Francisco*. 2005.
- Evans, Robert, *Biogeographic model of habitat indicators for the presence of Hesperolinan drymarioides*. 1996.
- Fernandez, Miguel Alejandro, *Assessing the effects of locality accuracy in predicting species distribution*. 2007.
- Folger, Karen, *Post-fire succession in the Inverness Ridge Bishop Pine Forest, Point Reyes National Seashore*. 1998.
- Funayama, Kota, *Effects of sea-level rise on northern elephant seals in Point Reyes Peninsula*. 2010.
- Grosso, Christina, *Mountain Lake: its function and compatibility as a recreational area and native habitat*. 1998.
- Harvey, Brian, *Spatial and Temporal Vegetation Dynamics Following Fire in a Bishop Pine (Pinus muricata) Forest, Point Reyes National Seashore, CA*. 2010.
- Heiser, Shawn, *Living on the Edge: an environmental history of land use at Mussel Rock*. 2010.
- Hiatt, Seth. *Habitat distribution modeling of Arctostaphylos myrtifolia in Amador County, CA*. 2008.
- Herring, Holly, *Serpentine's connection with safety, environmental and health problems near Coalinga, California*. (Chair) 1997.
- Jackson, Cynthia Jennifer, *Sources of endocrine disrupting chemicals in wastewater: Oakland, CA*. 2007.
- Konde, Lora, *Spatial analysis of successful natural blue oak regeneration, Priest Valley, California*. 1994.
- Lee, Judy, *Modeling Population Distribution in Urban Areas Using Remote Sensing Information: A Spatial Metrics Method*. 2007.
- Lupo, Thomas, *Will habitat destruction extirpate the Swainson's hawk from the Sacramento area?* 1992.
- Mackay-Shea, Ruth, *Mapping vegetation for biodiversity analysis using integrated remote sensing/GIS methodology: Woodside, California*. 1994.
- Macrae, James, *GIS study to assess potential transit-oriented development in the Bay Area*. 2000.
- Matuk, Vivian, *Water quality of San Pedro Creek watershed, Pacifica, California*. (Chair) 2001.

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- Maxwell, Andrew, *Mapping and habitat analysis of the California endemic tree, Torreya californica, in Marin County*. (Chair) 1992.
- McDonald, Kelsey, *The San Pedro Creek Flood Control Project: Integrative analysis of natural hazard response*. 2004.
- McTavish, Anne, *The Role Of Critical Cartography In Environmental Justice: Land-Use Conflict At Shasta Dam, California*. 2009
- Micallef, Sean, *Grazing effects on the grassland vegetation of Mount Diablo State Park, California*. 1998.
- Melton, Lee, *Computer-assisted classification of suburban areas in satellite imagery through the use of artificial neural networks*. 1998.
- Meyer, Tiffany, *The Arctostaphylos myrtifolia and Eriogonum apricum Plant Community: Its Distribution, Abundance & Conservation*. 2004.
- Odaya, Mami. *Estimating Egeria Densa Biomass in the Sacramento-San Joaquin Delta Using Remote Sensing*. 2004.
- Olson, Annette. *Fire in the Berkeley Hills: A Geographic Analysis*. 2004.
- Omlid, Alicia. *Sustainable stormwater management: implementing best management practices in San Francisco's Panhandle area*. (Chair). 2009.
- Powell, Cynthia, *Using MODIS and precipitation data to create a stochastic water runoff forecasting model for the Mokelumne River Basin in the Sierra Nevada Range, California (2000-2010)*. M.S. 2010
- Pribor, Paul, *Post-fire succession in bishop pine forest at Point Reyes National Seashore, California (1995-2001)*. 2002.
- Proctor, Elizabeth, *Reducing Variation in Geo-Referenced Museum Specimen Locality Data*. (Chair) 2004.
- Reed, Tim, *Analyzing SeaWiFS using GIS: phytoplankton blooms in the Bering Sea*. (Chair) 2003.
- Richardson, Andrew, *Identification and prioritization of prescribed burn sites in the Crystal Springs watershed*. (Chair) 1994.
- Schnabel, Joshua M., *A comparison of methods for assessing hazardous air pollutant risk in communities*. 2007.
- Scollon, Daniel, *Spatial analysis of the tidal marsh habitat of the Suisun song sparrow*. 1993.
- Sears, Adrian, *A karst hydrochemical study of the Marble Mountains of northwestern California*. (Chair) 1997.
- Serefiddin, Feride, *Seasonality of solution processes in the Marble Mountains subalpine karst of northern California*. 1998 (chair).
- Sims, Stephanie, *Hillslope sediment source assessment of San Pedro Creek Watershed, California*. (Chair) 2004.
- Tatman, Jaime, *Restoration Planning for the Bolinas Lagoon, Marin County, California*. 2011.
- Thompson, Arnold. *Water Repellency, Soil Moisture Surface Runoff and Soil Erosion Under Eucalyptus Canopy vs. Oak Canopy in Coastal California*. (Chair) 2007.
- Waddington, Sadie, *Quantitative Study of Sediment Accumulation due to Mangrove Removal at Turneffe Atoll, Belize*, 2008.
- White, Nelia, *Discrete versus Continuous: A Comparison of Water Quality Monitoring Techniques*. (Chair) 2006.
- White, Paula, *Evaluating Impacts of Polystyrene Bans: Trash-Impaired Watersheds in the East Bay*. (Chair) 2010.
- Wollmer, Steve, *Effects of multiple use on rain splash erosion and runoff in semiarid rangeland*. (Chair) 1994.

Completed M.S. Geology Theses:

Jerry D. Davis

- Gorman, Peter D. *Spatial and temporal variability of hydraulic properties in the Russian River streambed, central Sonoma County, California*. 2004.
- Kunze, Marshall, *Pure, Plentiful, Perpetual? The Edwards Aquifer: Conflict and Sustainability*. 2008.
- Lee, Gina. *Geomorphic expression of differential uplift, Point Reyes peninsula, Marin County, California*. 2008.
- Leverich, Glen. *The Morphological Effect of Variable Flow on a Meandering Channel Model*. 2006.
- Marshall, Jill. *Hillslope rock fragment production: grain size distributions, abundance and climatic influences*. 2009.
- Rogge, Erdmann H. *Dimensions of the Westside Groundwater Basin, San Francisco and San Mateo Counties, California*. 2003.
- Sas, Robert J. *Road-related failures and debris flow hazards, Blue Ridge Parkway, North Carolina*. 2008.
- Scherer, Anne Marie, *GIS Analyses of Quaternary Marine Terraces, Pt. Reyes Peninsula, CA*. M.S. Geology, 2004.
- Simpson, Megan K., *Background trace element concentrations in the Franciscan Complex, San Francisco, California*. 2004.

Other Completed Masters Theses:

- Bowman, Rebecca (2010). *Landforms, a curriculum unit for kindergarteners, based on a Montessori-like approach*. M.A. Education, 2010.
- Crawford, Dinah J. *Mapping museum collections: practical applications of a geographic information system (GIS)*. M.A. Museum Studies 2000.
- Johnson, Richard. *A Basin-wide Snorkel Survey of the San Pedro Creek Steelhead (Oncorhynchus mykiss) Population*. SFSU Biology Thesis, 2005.
- Lang, Suzanne, *From a distance: visual representation of spatial reality*. M.A. Cinema, 2001.
- Torregrosa, Alicia. *Vegetation dynamics in the Sierra Buttes, CA : predicting species' occurrence by merging CCA and GIS*. M.A. Biology, 2000.

Completed M.A. Research Projects

- Bathrick, Robert, *A water balance approach for analyzing irrigation water delivery anomalies*. (Chair) 1992
- Brown, Martha, *Virtual field trips, the internet and geographic education*. 1998
- Collins, David, *A day's journey: porters, roads, and towns in prehispanic Mesoamerica*. 2003.
- Culp, John, *Shell mounds to cul-de-sacs: the cultural landscape of San Pedro Valley, Pacifica, California*. 2002.
- Falbo, Chris, *Surface soil erosion in Solano County, California, and the influence of slope, climate, and land use*, 1987.
- Garcia, Carol, *Lessons Learned: Effective Mitigation for Large Dams in South East Asia*, 2002.
- Gear, Karyn, *Developing conservation plans at the local level*. (Chair) 2001.
- Isaacs, Jodene, *The California Rangeland Reference Area (RRA) Database: a spatial arrangement*, 1996.
- Jung, Craig, *Managing the mountain bike at Mt. Tamalpais, Marin County, California*. 2003.
- Keller, Elspeth, *Napa and its river*. (Chair) 1999.
- Kunze, Marshall, *Pure, plentiful, perpetual? The Edwards Aquifer: conflict and sustainability* (Chair) 2008.
- Liles, Ty, *Land-use history of the Pescadero Creek watershed, San Mateo County, California: 1848-1990*, 1994

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- Melamed, Ann, *To eat dusty bread: the migration experiences in the western landscape of middle-class, African-American and Mormon women in the nineteenth century*, 1998.
- Milliken, Jeff, *Water resource issues along the lower Colorado River*, 2000.
- Owens-Viani, Lisa, *Restoring an urban stream: Baxter Creek case study*. (Chair) 2000.
- Peri, Andy. *Habitat Assessment of Arroyo Corte Madera del Presidio, Mill Valley, California*. (Chair) 2004.
- Visram, Kassim, *Modeling property values in a railway right-of-way using dynamic segmentation*, (Chair) 1997.
- Withington, William P. *An alternate method of aging Red Alder for landscape analysis*. (Chair) 2003.
- Witt, Justin, *Regulatory and Geographical Wastewater Disposal Constraints, Sonoma County*. 2003.