



John A. Gallo

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Dr. Gallo started his career as an ecologist surveying for wildlife, developing habitat relationship models, and initiating a long-term ecological monitoring program. Then he started a regional project focused on sustaining our natural heritage via science, community engagement, and long-term planning. Recognizing that conservation requires both natural and social science, he then attained his Ph.D. in Geography, which he defines as the study of interactions between humans, environment, and place, from the local to global scale. Meanwhile, he was the lead scientist in developing the Regional Conservation Guide, published by the project (which was by then an NGO), and related to his dissertation. This led to similar action-research in South Africa for his post-doctoral work, and then back in the U.S. for his professional work.

Through this journey, his understanding of conservation has evolved to include the working landscape (e.g. wisely managed agriculture and renewable energy development) and the ethic of stewardship. He is currently Principal Investigator for several projects that are developing and deploying advances in spatial decision support systems (SDSS). These systems synthesize a wealth of data and knowledge about a place into an adaptive modeling system for estimating the current and projected spatial needs of humans and nature, and how those needs can be met. Specific developments include improvements to connectivity and representation modeling tools, as well as multi-objective optimization modeling. He is also looking at how to better leverage collaborative participation of decision-makers, stakeholders, experts, and citizen scientists in developing and using these systems.

SUMMARY OF PRIMARY SKILLS

Conservation Planner, GIS Analyst/ Programmer (Modelbuilder and basic Python), Science Communicator, Project Manager, Geographer, & Wildlife Biologist

EDUCATION

Ph.D. Geography (Human/Environment Relations Emphasis) University of California, Santa Barbara (UCSB). 2007. Advisor: Michael Goodchild. Thesis: Engaged conservation planning and uncertainty mapping as means towards effective implementation and monitoring

Bachelor of Science. Ecology. UCSB. 2005

Bachelor of Arts. Environmental Studies (Natural Science Emphasis). UCSB. 2005

SELECT AWARDS

2008 – ESRI, Inc. Conservation Grant. Creating a decision support system for conservation action.

2008 – Table Mountain Fund- Incorporating local expert knowledge into a decision support system.

2007 – Critical Ecosystems Partnership Fund- Postdoctoral research grant regarding conservation planning for action in the Little Karoo, South Africa.

2006 – Jack and Laura Dangermond Award – “promise in Geographic Information Science.”

2000 – 2005 - Regents Special Fellowship- University of California.

2000 – The Philip and Aida Siff Educational Foundation Fellowship.

2000 – NSF Graduate Research Fellowship. Honorable Mention

1995 – Highest College Honors, UCSB- Top 2% of graduating class university-wide

1995 – Excellence in Environmental Studies, UCSB.

1991 – 1995 Regent’s Fellowship, University of California.

1991 – Mensa Society Award. “Outstanding intellectual promise.”

1991 – Elks Club Fellowship. Most Valuable Student award.

1991 – Rotary International Award. “proven and continued ‘service above self.’”

1991 – Valedictorian. Mendocino High School

EMPLOYMENT HISTORY

2013 – Present Senior Scientist, Conservation Biology Institute, Corvallis, OR

2010 – 2013	Senior Landscape Ecologist, The Wilderness Society, San Francisco, CA
1997 – 2013	Principal, John Gallo, Conservation Services, CA
2007 – 2009	Post-doctoral Fellow, University of Cape Town; and Nelson Mandela Metropolitan University, Little Karoo, South Africa
1996 – 2007	Project Director, then Conservation Scientist, Conception Coast Project, Santa Barbara, CA
2001 – 2006	Teaching Assistant, Department of Geography, UCSB
2002 – 2003	Research Associate, Department of Geography, UCSB
1995 – 2002	Museum Associate (Wildlife Biologist) Cheadle Center for Biodiversity and Ecological Restoration, UCSB
1993 – 1994	Wildlife Biologist, U.S. Forest Service, Nez Perce NF, Idaho

SELECT PROJECT EXPERIENCE

Consensus building for a working landscape. Developed and deployed a basic decision support system to help environmental and industry stakeholders come to consensus on the spatial conservation and development priorities in the Kenogami-Ogoki Forest of Ontario, Canada. Emphasis on caribou conservation and timber yield.

Conservation planning SDSS for three types of conservation to address climate change. Developed and deployed a proof-of concept spatial decision support system to allocate a landscape among three types of conservation, and to transparently communicate why any planning unit received its allocation and valuations.

A “living” SDSS for Sonoma County. Employing a transparent and “living” SDSS to updateable as data and politics change, and be published online as an interactive, Web-based program so that the public can explore and learn about the District’s prioritization methods and priority conservation areas.

Connectivity Software Development. Developed improvements to LinkageMapper software, with collaborators, to also provide inter-corridor prioritization instead of just intra-corridor prioritization. Applied this new software to five landscapes.

Road Decommissioning Prioritization Software Development. (While at The Wilderness Society) Developed RoadRight, with collaborators, a SDSS that combines a large suite of input criteria to help prioritize which road segments of a national forest are best for decommissioning.

Consensus building for conservation actions. (While at Nelson Mandela Metropolitan University) Quantified the role of private land stewardship in biodiversity conservation. Created an SDSS for synthesizing ecological needs and anthropocentric constraints to help a partnership between a land-trust and a government agency come to consensus on high conservation priority properties.

Developing a Regional Conservation Guide for the Community. (While at Conception Coast Project) Used participatory action research to perform a [systematic conservation assessment](#) that also mapped uncertainty. Utilized local expert knowledge and multi-criteria modeling of marginal utility and incorporated inter-organizational input to create a public reference that mapped and communicated the landscape requirements for maintaining ecological integrity.

Surveyed and monitored Least Bell's Vireo and Southwestern Willow Flycatcher. (While at John Gallo, Conservation Services) Surveyed several mile stretch of wide and thick riparian floodplain for these species. Twenty-seven breeding pairs were found, 28 nests, and 103 eggs. Other species were monitored, and the full report is available [here](#).

Surveyed for Timber Wolf and Northern Goshawk. (While at USFS) Led the field crew in howling surveys for timber wolf and playback surveys for northern goshawk on day long and 4-day backpacking trips. Planned routes, entered data, and reported findings. Also helped as a night watchman interacting with EarthFirst!.

PEER-REVIEWED PUBLICATIONS

Newman, G., M. Clyde, B. McGreavy, M. Chandler, M. Haklay, H. Ballard, S. Gray, D. Mellor, and J. Gallo. 2017. **Leveraging the power of place in citizen science for effective conservation decision-making.** *Biological Conservation* 208 55-64 [[link](#)]

- Gallo, J. and M. Goodchild. 2011. **Mapping Uncertainty in Conservation Assessment as a Means Toward Improved Conservation Planning and Implementation.** Society and Natural Resources 25 (1) 22-36 [[link](#)]
- Gallo, J., L. Pasquini, B. Reyers, and R. Cowling. 2009. **The role of private conservation areas in biodiversity representation and target achievement within the Little Karoo region, South Africa.** Biological Conservation 142 (2) 446-454 [[link](#)]
- Gallo, J., A. Lombard, and F. Davis. In Revision, Draft available upon request.
Narrowing the gaps between conservation assessment, planning, and implementation via spatial decision support systems that are “living” and integrated
- Campellone, R.M., K.M. Chouinard, N.A. Fisichelli, J.A. Gallo, J.R. Lujan, R.J. McCormick, T. Miewald, B.A. Murry, D.J. Pierce, and D.R. Shively. In Press.
The iCASS Platform: Nine principles for landscape conservation design. Landscape and Urban Planning

SELECT PUBLICATIONS (NON PEER-REVIEW)

- Gatewood, B., Davis, F., Gallo, J., Main, S., McIntyre, J., Olsen, A., Parker, G., Pearce, D., Windhager, S., Work, C. InPress. **Santa Barbara County Conservation Blueprint: Creating a Landscape of Opportunity.** Figshare:
<https://doi.org/10.6084/m9.figshare.5318269>
- Aplet, G. and J. Gallo. 2012. **Applying Climate Adaptation Concepts to the Landscape Scale: Examples from the Sierra and Stanislaus National Forests** The Wilderness Society [[.pdf](#)]
- Gallo, J. 2009. **Engaged Conservation Planning and uncertainty mapping: A framework and a method for improving the implementation of conservation plans.** VDM Verlag Publishing, Saarbruecken, Germany [[view](#)] [[request](#)]
- Gallo, J. 2007. **Engaged Conservation Planning and uncertainty mapping as a means towards effective implementation and monitoring.** Doctoral Dissertation. Department of Geography. University of California, Santa Barbara. [[open access](#)]
- Gallo, J. 2005. **Mapping Uncertainty to Ease the Tension between Public Participation GIS and Conservation Planning.** In Proceedings of the 4th

Annual Public Participation GIS Conference. Urban and Regional Information Systems Association (URISA) July 31 - August 2. Cleveland State University. Cleveland, Ohio

- Pyke, C., P. Alagona, N. Goldstein, B. Bierwagen, J. Merrick, H. Rosenberg, and J. Gallo. 1999. **A Plan for Outreach: Defining the Scope of Conservation Education.** *Conservation Biology* 13:1238
- Gallo, J. 1996. **Quantitative Analysis of the Habitat Requirements for the Bell's Sage Sparrow, *Amphispiza belli belli*, at Vandenberg Air Force Base, California.** *Discovery, UCSB Journal of Undergraduate Research.* Santa Barbara, CA [\[link\]](#)
- Gallo, J., J. Studarus, G. Helms, and E. Machado. 2005. **Regional Conservation Guide Conception Coast Project.** Santa Barbara, CA. [\[link\]](#)
- Gallo, J., and J. Smart. 2003. **Who Wants to Help Build a Stronger Sustainability Movement?** *Hopedance: Pathways to Sustainable Living and Positive Solutions.* Issue 36. January-February. [Republished in 2009: [link](#)]
- Stoecker, M. and Conception Coast Project, 2002. **Steelhead Assessment and Recovery Opportunities in Southern Santa Barbara County, California.** Conception Coast Project, Santa Barbara, CA [\[link\]](#)
- Gallo, J., J. Scheeter, M. Holmgren, and S. Rothstein. 1999. **Initiation of a Long term Ecological Monitoring Project: Avian Point Counts and Habitat Assessments in Riparian Communities at Vandenberg Air Force Base, California.** University of California, Santa Barbara Museum of Systematics and Ecology, Environmental Report No. 13 [\[link\]](#)
- Gallo, J. 1999. Species Account for the Bell's Sage Sparrow In Holmgren, M. and Collins, P. (eds.) **Distribution and Habitat associations of Six Special Concern Bird Species at Vandenberg Air Force Base, California.** University of California, Santa Barbara, Museum of Systematics and Ecology, Environmental Report No. 7

SELECT CONFERENCE PRESENTATIONS

- Gallo, J., R. Greene, R. DeGagne, H. Rustigian-Romsos, J. Brice, J. Strittholt, and W. Spencer. 2017. **Modeling the relative priority of habitat linkages, including climate considerations.** Society for Conservation GIS Conference, July 17 [\[link\]](#)

- Gallo, J., 2017. **Utilizing web-enabled geographic information systems to leverage the power of place in collaborative conservation science.** In Symposium: Designing collaborative science projects and tools for conservation Citizen Science Association Conference. Saint Paul, Minnesota, April 18 [[link](#)]
- Gallo, J., 2016. **Spatial conservation prioritization for multiple actions, with connectivity, and transparency.** North American Congress of Conservation Biology, Madison, WI. July 17
- Aplet, G (presenter), P. McKinley, and J. Gallo. 2016. **Keynote: Spreading Conservation Risk with a Portfolio of Strategies Natural Areas Association.** Sacramento, CA Oct. [[video](#)]
- Gallo, J., and G. Aplet. 2016. **Allocating land to a three-zone climate adaptation strategy using a spatial decision support system.** American Association of Geographers, San Francisco, CA. April 1. [[link](#)] (In: symposium organized by Dr. Gallo: Conservation in the Anthropogenic- Balancing Innovation with Caution? [[link](#)])
- Gallo, J., 2015. **Place-based Citizen Science: Linking Together to Leverage the Power of Place.** American Association for the Advancement of Science, San Jose, CA. February 15 [[Link](#)]
- Gallo, J., 2014. **A land-use decision support prototype for combining a broad suite of ecological models.** Ecological Society of America. Sacramento, CA, August 14
- Gallo, J., 2014. **Implementation of conservation objectives via living and integrated decision support systems.** North American Congress of Conservation Biology. Missoula, Montana, July 16
- Gallo, J., A. Lombard and R. Greene. 2013. **Achieving implementation of conservation plans by using a “living” and “engaged” decision support framework.** International Congress of Conservation Biology. Baltimore, MD, July 24
- Gallo, J., M. Dietz, J. Boggs and K. Menken. 2013. **Rightsizing the National Forest Road System: A Road Decommissioning Decision Support Tool.** Society for Conservation GIS. Monterey, CA, July 17

- Gallo, J., A. Lombard and R. Greene. 2013. (workshop) **A “living” decision support framework and system for conservation assessment, planning, and management.** Society for Conservation GIS. Monterey, CA, July 16
- Gallo, J. 2012. **Collaborative Landscape Planning and Management** (Poster) Public Participation in Scientific Research Conference, Portland, OR, August
- Gallo, J. 2012. **A Landscape Decision Support System and Online Collaborative Laboratory** (Collaboratory) North American Congress of Conservation Biology, Oakland, CA ; July 17, 2012
- Gallo, J., R. Greene, M. Van Bakel. and T. Robinson. 2012. Symposium: **LandAdvisor and The Landscape Collaborative Society for Conservation GIS.** Monterey, CA, July
- Gallo, J. and R. Greene. 2011. **A Landscape Decision Support System and Online Collaborative Laboratory** (Collaboratory) ESRI User’s Conference, San Diego, CA, July 14
- Gallo, J., 2010. **A vision, framework, and customizable decision support toolbox for conservation action** Society for Conservation GIS. Monterey, CA, July 10.
- Gallo, J., A. Lombard, R. Cowling. 2009. **A new framework and systematic conservation planning prototype that includes the “working landscape” and can harness Web 2.0.** Society for Conservation Biology, Bay Area Chapter Conference, San Francisco, CA
- Gallo, J., A. Lombard, R. Cowling. 2009. **The BioVision Decision Support System for Conservation Action Biodiversity** Planning Forum, Durban, South Africa, March 12.
- Gallo, J., A. Lombard, R. Cowling. 2008. **Lorax: A framework for estimating the current conservation value and recommended action for every site in a region.** Interfaces Conference, Oudtshoorn, South Africa, August 5.
- Gallo, J., L. Pasquini, B. Reyers, and R. Cowling. 2008. **The role of private conservation areas in biodiversity representation.** Society for Conservation Biology, Chattanooga, Tennessee. July 16.
- Gallo, J. 2007. **Engaged conservation planning and the landscape knowledge network: reconnecting society and nature while conserving biodiversity.** Society for Conservation Biology. Port Elizabeth, South Africa. June 27.

- Gallo, J. 2007. **Engaged conservation planning and management reconnecting society and nature while conserving biodiversity.** Society for Conservation Biology Conference, Bay Area Chapter, Berkeley, CA January
- Gallo, J. 2006. **Honest Mapping: Communicating the Uncertainty Inherent to Conservation Planning as a Means Towards Implementation.** Society for Conservation GIS. San Jose, CA. June 27.
- Gallo, J. 2006. **Reconnecting Society and Nature: Bioregionalism for a New Millennium.** Annual meeting the Association of American Geographers. Chicago, IL. March 8.
- Gallo, J. 2005. **Presenting Conservation Plans: the Role of Imperfection.** Association of Pacific Coast Geographers. Phoenix, AZ. October 21.
- Gallo, J. 2005. **Mapping Uncertainty to Ease the Tension in Public Participation GIS and Conservation Planning.** Annual Conference of Public Participation GIS sponsored by URISA. Cleveland, OH. July
- Gallo, J. and M. Goodchild. 2005. **Can the mapping of uncertainty ease the tension between PPGIS and Conservation Planning?** Annual meeting of the Association of American Geographers. Denver, CO. April
- Gallo, J. and C. Gallipeau. 2003. **Modeling landscape Connectivity using a Least-Cost Path Function for Puma (Puma concolor) Dispersal.** Agricultural Geography and Biogeography Poster Session. Annual meeting of the Association of American Geographers. New Orleans, LA. March 5.
- Gallo, J. 2002. **Place-based Conservation Planning.** Environmental Sustainability and Policy Session. Annual meeting of the Association of American Geographers. Los Angeles, CA. March 23.
- Gallo, J. 2000. **Perspectives on Stakeholder Involvement, and a Model Metadata Standard: Summary of the Human-Environment Workgroup.** 4th International Conference on Integrating Geographic Information Systems (GIS) and Environmental Modeling. Banff, Alberta. September 8.

SELECT KEYNOTES AND INVITED LECTURES

2015. **Helping Citizen Science Take Flight: Studies, Resources and Opportunities to Improve the Utility and Uptake of Citizen Science.** Audubon Society. Mendocino Coast Chapter, Caspar, CA. February 16 [[Link](#)]

2014. **Boundary Organizations Pushing the Frontier of Spatially Explicit and Collaborative Decision-Making about the Environment.** At: Democratizing Technologies- Assessing the roles of NGOs in shaping technological futures. Santa Barbara, CA, November 14
2012. **Collaborative Research Towards Collaborative Conservation Planning and Management.** UC Santa Barbara: Michael Goodchild Retirement Event. May 24
2011. **Wolves, Wildness, and Conservation Science.** Santa Clara University: Env'tl. Studies 22. November 17
2009. **Building and implementing a spatial decision support system for conservation action.** Nelson Mandela Metropolitan University. April 23
2008. **The role of private conservation areas in biodiversity representation here in the Little Karoo.** Gauritz Initiative Stakeholder Forum. February 2
2006. **Conservation GIS in the Santa Barbara Region.** Geography 176A: Introduction to Geographic Information Systems. October 26 [[Link to .ppt](#)]
2005. **Landscape Connectivity and Multi-Criteria Conservation Planning.** Environmental Studies 100: Environmental Ecology. November 18
2005. **Gated Least-Cost-Path Modeling and Landscape Connectivity.** Geography 176B: Intermediate Geographic Information Systems. March 3
2004. **Conservation Planning and GIS.** Geography 176C: Advanced Geographic Information Systems. May 27
2003. **Habitat Connectivity For Large Mammals.** Environmental Studies 20: Watershed Issues, Policy, and Research. November 7
2003. **The Web of Sustainable Progress: A Vehicle for Social Change?** Antioch University: Community Psychology and Social Change. September 27
2002. **The Wildlands Project and Conception Coast Project: Normative Conservation Planning.** Environmental Studies 190: Current Topics in Environmental Studies. April 29
2002. **Developing "Common Ground" for the Gaviota Coast.** Ecology and Evolution 192B: Shoreline Preservation Research.. March 8
2001. **The Fourth Wave of Environmentalism: A Ride Towards Sustainability?** Environmental Studies 1: Introduction to Environmental Studies. November 29.

2001. **Conservation Planning Case Study.** Geography 167: Biogeography.
November
2001. **The Movement's Two Front Strategy: Damage Control and the Paradigm Shift.** Keynote Address at the Annual Banquet of the Shoreline Preservation Fund, Santa Barbara. May 29.
2000. **Conception Coast Project: Bridging Academia, Business, and Government towards a Community-Based Vision.** UCSB Arts and Lectures at Campbell Hall. Presented after Dave Forman presented The Wildlands Project. May 3
2000. **Biodiversity Conservation and "Reserve Design" within a Planning Context.** Geography 185A: Planning Issues. Winter
1999. **Biodiversity Conservation within a Planning Context.** Geography 185A: Planning Issues. Winter

MEMBERSHIPS AND SOCIETIES

- Society for Conservation Biology
- Society for Conservation GIS
- The Resilience Connections Network (The Resilience Alliance)

SELECT PROFESSIONAL ACTIVITIES

Associate, [Spatial Decision Support Consortium](#), with an area of emphasis on multi-criteria decision making; 2013 - present

Peer-review, Annals of the Association of American Geographers, Diversity and Distributions, Journal of Environmental Management, Natural Areas Journal and PLoS ONE,. 2002-Present

Short Course Introduction to Geoprocessing Scripts using Python, Instructor: Jack Horton, ESRI. July30-Aug 1, 2013

Board of Directors, Conception Coast Project 1995-1997; 2000-2002

Graduate Student. Representative Faculty, Search Committee, Earth-System Processes 2001.

Stakeholder Representative, Gaviota Coast "Common Ground" Steering Committee: 2000 to 2002. Helped negotiate the terms and make-up of an

eventual stakeholder group. At times was the only “urban environmentalist” among 20 residents, ranchers and developers. [\[Relevant editorial\]](#)

Undergraduate Representative, Environmental Studies Curriculum Revision Committee: 1994 to 1995.

Short Course Wildlands Studies: Greater Yellowstone. Backpacked roadless areas in Montana with small class, met with experts, and simulated a Wilderness valuation process. August 1 – 21, 1992