

Thomas Daniel Sisk

CURRICULUM VITAE

Contact

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Education

- 1987-92 Ph.D., Stanford University, Stanford, CA
Biological Sciences, Specialization in Ecology/Conservation Biology
Advisor: Paul R. Ehrlich
Dissertation: *Distributions of birds and butterflies in heterogeneous landscapes*
- 1979-83 B.A., with distinction, Colorado College, Colorado Springs, CO
Biology
Advisors: Richard Storey and Christopher Vaughan
Thesis: *Biology and agricultural impacts of the Central American pocket gopher*

Languages

Native English speaker, proficient in written and spoken Spanish

Awards and Recognition

- 2023 Morgart Award for Scientific Publication (coauthor), US Fish and Wildlife Service
- 2019 Senior Fellow, Borderlands Restoration Network
- 2017 Spirit of Defenders Science Award, Defenders of Wildlife
- 2017-22 Distinguished Visiting Fellow, Green College, University of British Columbia
- 2013 John Wesley Powell Lifetime Achievement Award, Grand Canyon Trust
- 2010 Project of the Year, Sustainable Environmental Research and Development Program
- 2001 Fellow, Aldo Leopold Leadership Program

Synergistic Activities

- 2022-24 Co-organized and launched *50 Voices for Endangered Species*, a network of junior scholars from diverse backgrounds who are working together to advance biodiversity conservation and endangered species recovery. The interdisciplinary group of social and natural scientists, legal scholars, and policy experts has become an independent and self-governing body, following planning and training retreats in Boise, Idaho, and Washington DC during 2023, the 50th anniversary of the signing of the US Endangered Species Act.
- 2018-21 Initiated efforts in support of the *Borderlands Biodiversity Corridor*, resulting in the permanent protection of ~160K acres of private land in northern Sonora, Mexico, and an endowment to provide for its ecological restoration and conservation, in perpetuity. The multi-institutional, cooperative effort safeguards the leading example or ecological restoration in the border region and adds significant components to a network of protected lands essential to restoring wildlife connectivity between the Sierra Madre massif in northern Mexico, and the southern Colorado Plateau region of

- the United States. Several nationally prominent policy recommendations, educational programs, and research projects have emerged from this expanding network.
- 2012-18 Led, in cooperation with the National Park Service, the *Greater Grand Canyon Landscape Assessment*, a novel approach for assessing resource conditions in Grand Canyon National Park and surrounding public, private and Tribal lands. We assessed natural and cultural resources jointly, and engaged stakeholders in prioritizing management needs at the sub-watershed scale.
- 2013-18 Developed and implemented the *Doris Duke Conservation Scholars Program* at Northern Arizona University, a prominent national program training undergraduate students from underserved and underrepresented backgrounds for leadership roles in the conservation field. This effort builds on a successful 5-year program, also supported by the Doris Duke Charitable Foundation, for MS students. No other PI or university was chosen to lead both of these programs.
- 2012-21 Incubated the start-up of *Conservation Science Partners, Inc.*, under the leadership of colleague and former postdoctoral fellow Dr. Brett Dickson, and joined as a founding member of the board of directors. CSP has grown rapidly to assume a leadership role in advanced analysis to support of conservation efforts across the country and internationally, working in close collaboration with NGO's, state and federal agencies, private companies, and landowners.
- 2011-18 Organized an interdisciplinary group of mostly Canadian scientists addressing environmental, economic, and social impacts of oil sands development. Publications in leading journals and an influential media campaign raised the group's public profile and informed decisions on Canadian climate policy and conservation priorities in terrestrial, freshwater, and marine ecosystems.
- 2011-20 Designed, launched, and assumed leadership of the *Landscape Conservation Initiative*, an interdisciplinary research, education, and decision-support partnership based at Northern Arizona University. Annual operating budget of \$1-2M, employing 8-12 faculty and staff, and supporting up to a dozen students.
- 2010-21 Worked with an alumna donor to structure a \$1.5 M endowment to Northern Arizona University, and served as the inaugural *Olajos-Goslow Chair in Southwestern Environmental Science and Policy*.
- 2000-11 Developed, implemented & directed an interdisciplinary M.S. program, in collaboration with political theorist D. Schlosberg. The *Masters of Environmental Science and Policy* program focuses on the interface between scientific research and environmental policy, and has trained >100 innovative graduates, over 95% of whom have hold influential positions in environmental fields.
- 2002-11 Founded and directed the *ForestERA Project*, a multidisciplinary effort to develop data and analytical tools for advanced landscape-level analysis to support deliberative approaches to forest policy and management. Funded largely through grants and subcontracts with federal resource management agencies, ForestERA provides a practical approach to landscape-level planning, influencing many projects in the Southwest region, including the Four Forests Restoration Initiative, Arizona's Statewide Strategy, fuels reduction efforts on both rims of the Grand Canyon, and collaborative forest management in northcentral New Mexico.
- 1992-11 Developed the *Effective Area Model*, a spatial tool for habitat analysis and planning that integrates consideration of complex edge effects into biodiversity planning and habitat restoration in fragmented landscapes. The model also supported the

- development and testing of fundamental theories regarding edge effects, resolving issues that had persisted in the scientific literature since Aldo Leopold's seminal work in the 1930's. Winner of SERDP Project of the Year Award.
- 1995 Co-founded the *Land Use History of North America Program*, a joint undertaking of USGS and NASA. This interdisciplinary effort supported interdisciplinary research that leveraged historical and paleo-environmental data to identify long-term trends and inform land use planning, conservation, and environmental education. The effort was an antecedent to the NASA Land-Cover and Land-Use Change Program.
- 1994-96 Served as Special Assistant for Science to the Director of the National Biological Service during a time of integration and reorganization of biological research capabilities within the U.S. Department of the Interior. During this period, I worked on the scientific aspects of complex policy issues, including the eventual merger of NBS with USGS.
- 1992-94 Helped develop and coordinate the *Program in Tropical Conservation Biology* for Stanford University's Center for Conservation Biology. In addition to overseeing research and training programs in four countries (Costa Rica, Guatemala, Ecuador, Madagascar), I acquired continuing funding for the program and recruited its first full-time director.

Professional Service

- Current Board of Directors, Defenders of Wildlife, Washington DC
 Board of Directors, Borderland Restoration Network, Patagonia, AZ
 Board of Directors, Rio Grande Return, Santa Fe, NM
 Board of Directors, Nature Trust of British Columbia, Vancouver, BC
 Board of Directors, Yek w emtus Foundation, Vancouver, BC
 Board of Advisors, Black Mesa Trust, Kykotsmovi, AZ
 Technical Advisor, Cuenca los Ojos, Agua Prieta, Sonora
- 2010-21 Board of Directors, Conservation Science Partners, Truckee, CA
- 2007-17 Senior Science Advisor, Grand Canyon Trust, Flagstaff, AZ
- 2007-16 Board of Directors, Diablo Trust, Flagstaff, AZ
- 2012-15 Board of Directors and Policy Chair, Society for Conservation Biology, North American Section
- 2003-12 Forest Health Advisory Council, Western Governors' Association
- 2001-10 Board of Directors, The Forest Guild, Santa Fe, NM
- 2006-07 Co-Chair, Governor's Committee to develop a Statewide Strategy for Restoring Arizona's Forests
- 2005-08 Board of Governors, Society for Conservation Biology
- 2000-04 Founder/President, Colorado Plateau Chapter of the Society for Conservation Biology
- 2004-05 Public Affairs Committee, Ecological Society of America
- 1998 Program reviewer for conservation research programs in India, Wildlife Institute of India and U.S. Fish and Wildlife Service
- 1990-pres. Peer Reviewer and Editor for *BioScience*, *Biological Conservation*, *Conservation Biology*, *Ecography*, *Ecological Applications*, *Frontiers in Conservation Science*, *Ecology*, *J. Wildlife Manage.*, *J. Applied Ecology*, *Restoration Ecology*, and others

Employment History

- 2011-21 Charles Olajos and Ted Goslow Chair of Southwestern Environmental Science and Policy, Northern Arizona University
- 2005-21 Professor, Ecology, Northern Arizona University
- 2013-20 Director, Landscape Conservation Initiative, Northern Arizona University
- 2017-18 Visiting Professor, School of Resource and Environmental Management, Simon Fraser University, Vancouver, Canada (*sabbatical leave*)
- 2010-11 Visiting Professor, Institute for Resources, Environment & Sustainability; University of British Columbia, Vancouver, Canada (*sabbatical leave*)
- 2001-05 Associate Professor, Ecology, Northern Arizona University
- 2004 Visiting Scholar, The Ecology Centre, University of Queensland, Brisbane, Australia (*sabbatical leave*).
- 1996-01 Assistant Professor, Ecology, Northern Arizona University
- 1994-96 Special Assistant to the Director (Science), National Biological Service, U.S.
- 1992-94 Tropical Program Coordinator, Center for Conservation Biology, Stanford University
- 1987-92 Research Associate, Center for Conservation Biology, Stanford University
- 1984-87 Assistant Director and Wildlife Specialist, Forest Stewards Guild, Santa Fe, NM

Grants and Contracts Received

- 2013-21 Wyss Scholars for the Conservation of the American West. Wyss Foundation. Approx. \$1M, 8 years.
- 2013-19 Doris Duke Conservation Scholars Program. Doris Duke Charitable Foundation. \$2.2M in two grants, 6 yrs.
- 2015-16 Support for DDCSP@NAU Student internships. Wilburforce Foundation. \$50K, 1 yr.
- 2014-15 Burnt Corral Collaborative Management Planning. USDA Forest Service. \$35K, 1 yr.
- 2013-16 Determining prescribed fire and fuel treatment compatibility with semidesert grassland habitat rehabilitation for the critically endangered masked bobwhite quail (*Colinus virginianus ridgwayi*). Joint Fire Sciences Program. \$125K Subcontract from US Fish and Wildlife Service, 3 yrs (PI S. Sesnie; total project budget 369K).
- 2013-14 Greater Grand Canyon Landscape Assessment. National Park Service. \$96K, 2 yrs.
- 2012-14 Natural Resources Condition Assessment for Grand Canyon National Park. National Park Service. \$123,071, 3 yrs.
- 2010-14 Integrated Spatial Models of Non-native Plant Invasion, Fire Risk, and Wildlife Habitat to Support Conservation of Military Lands in the Arid Southwest. Strategic Environmental Research and Development Program. \$1.8M, 4 yrs (PI B. Dickson).
- 2010-13 A New Time Series Remote Sensing Approach to Mapping Fine Fuels in Sonoran Desert Ecosystems. Joint Fire Sciences Program. \$465K, 3 yrs (PI S. Sesnie).
- 2010-12 Analysis of the Impacts of Pollution from the Navajo Generating Station on Vegetation in Grand Canyon National Park. National Park Service. \$64K, 2 yrs (PI N. Johnson).
- 2008-13 Implementing the Wyss Scholars Program for Interdisciplinary Graduate Students at Northern Arizona University. \$450K, 5 yrs.
- 2008-11 Assessing Impacts of Introduced Bison on Native Ecosystems in the Grand Canyon Region. National Park Service. \$40K, 3 yrs.
- 2007-12 Doris Duke Conservation Fellows Program, NAU MS Program in Environmental Sciences and Policy. Doris Duke Foundation. Approx \$300K, 5 yrs.

- 2007-10 Realizing the potential of the effective area model. Strategic Environmental Research and Development Program. \$312K, 3 yrs.
- 2007-10 Student support for conservation science on the Colorado Plateau. Grand Canyon Trust. \$65K, 3 yrs.
- 2006-11 Landscape Assessment of the Kaibab Plateau and Kane and Two Mile Ranches. Grand Canyon Trust. \$148K, 2 yrs.
- 2007 Northern Arizona Small-Diameter Wood Supply Analysis. US Forest Service, Region 3. \$150K, 1 yr (Co-PI w/H. Hampton).
- 2007 Landscape Assessment: Tools for Strategic Planning. US Forest Service, Ecological Restoration Institute. \$100K, 1 yr.
- 2005-09 Developing a spatial database for ecological assessment and wildlife habitat analysis on Anderson Mesa. Arizona Game and Fish Department. \$37K, 3 yrs.
- 2005-09 Assessing the impacts of wildland-urban interface treatments on wildlife in pine forests. Arizona Game and Fish Department. \$50K, 3 yrs.
- 2004-07 Multi-jurisdictional application of ForestERA landscape decision support tools in north-central New Mexico. Joint Fire Sciences Program. \$431K, 2 yrs.
- 2005-06 ForestERA project continuation. US Forest Service, via Ecological Restoration Institute. \$300K, 1 yr.
- 2004-05 A tool for sustainability: measuring outcomes with indicators of ecosystem health. EPA People, Prosperity and the Planet Award. 10K, 1 yr.
- 2004-05 ForestERA project, phase II. US Forest Service, via Ecological Restoration Institute. \$300K, 1 yr.
- 2003-05 A Mexico-U.S. partnership for applied ecology and conservation biology. USAID. \$157K, 2 yrs. (PI G. Koch).

Teaching Experience

Northern Arizona University: Conservation Biology, Landscape Ecology, The Environmental Science/Policy Interface, Grand Canyon Semester, Environmental Ecology, Metapopulations, Modeling the Environment for Social Outcomes, Leadership Communication & Planning for Environmental Professionals, Web of Life: Culture and Environment on the Colorado Plateau, Policy and Management of the Grand Canyon, Introduction to Environmental Sciences
Bamfield Marine Science Center: Conservation Biology. Coastal Biodiversity and Conservation
Stanford University: The Biology of Birds, Research in Bird Biology

Graduate Degrees Supervised (30 students: 27 MS, 3 PhD)

Deon Ben, MS, in progress; Bernardo Murrieta Molina, MS, 2021; Emily Yurcich, MS, 2019; Sasha Stortz, MS, 2014; Collin Haffey, MS, 2014; Cassandra Rivas, MS, 2014; Cerissa Hoglander, MS, 2013; Evan Reimondo, MS, 2012; Chris Ray, MS, 2011; Lauren Mork, MS, 2010; Christopher Holcomb, MS, 2010; Carrie Cultra Eberly, MS, 2010; Hillary Hudson, MS, 2010; Eli Bernstein, MS, 2008; Michelle Della Cruz, MS, 2008; Ronald Hubert, MS, 2007; Sarah Reed Herteau, MS, 2007; Ryan Drum, MS, 2007; Raúl Romo León, MS, 2006; Matthew Loeser, PhD, 2005; Tischa Muñoz-Erickson, MS, 2004; Laura Williams, MS, 2004; Leslie Ries, PhD, 2003; James Battin, PhD, 2003; Ethan Aumack, MS, 2003; Judson Wynne, MS, 2002; Monica Hansen, MS, 2002; Matthew Loeser, MS, 2001; Celia Meyer, MS, 2000

Postdoctoral Scholars Supervised: Steven Sesnie, 2007-10, Brett Dickson, 2006-10, Yaguang Xu, 2002-2006, John Prather, 2002-2006

Publications

Scientific Journal Articles (58)

- Sesnie, S.E., L. Johnson, E. Yurcich, T.D. Sisk, J. Goodwin, and R. Chester. 2022. *Multisensor models for assessing recurrent fire compatibility with habitat recovery for the critically endangered masked bobwhite quail (*Colinus virginianus ridgewayi*)*. Remote Sensing of the Environment. <https://doi.org/10.1016/j.rse.2021.112824>
- Souther, S., M. Loeser, T.E. Crews, and T.D. Sisk. 2020. *Drought exacerbates negative consequences of high-intensity cattle grazing in a semiarid grassland*. Ecological Applications, 30(3). <https://doi.org/10.1002/eap.2048>
- Souther, S., M. Loeser, T.E. Crews, and T.D. Sisk. 2019. *Complex response of vegetation to grazing suggests need for coordinated landscape-level approaches to grazing management*. Global Ecology and Conservation 20:e00770.
- Haffey, C., T.D. Sisk, C.D. Allen, A.E. Thode, and E.Q. Margolis. 2018. *Limits to ponderosa pine regeneration following large high-severity forest fires in the Southwest United States*. Fire Ecology 14:143–163. <https://doi.org/10.4996/fireecology.140114316>.
- Zavaleta, E., C. Aslan, W.J. Palen, T.D. Sisk, M.E. Ryan and B.G. Dickson. 2017. *Advancing career innovation in conservation science*. Conservation Biology. DOI: 10.1111/cobi.12987
- Green, S.J., K. Demes, M. Arbeider, W.J. Palen, A.K. Salomon, T.D. Sisk, M. Webster, M.E. Ryan. 2016. *Oil sands and the marine environment: Current knowledge and future challenges*. Frontiers in Ecology and the Environment. DOI: 10.1002/fee.1446
- Dickson, B.G., C.M. Albano, B.H. McRae, J.J. Anderson, D.M. Theobald, L.J. Zachmann, T.D. Sisk, T.D., and M.P. Dombeck. 2016. *Informing strategic efforts to expand and connect protected areas using a model of ecological flow, with application to the western US*. Conservation Letters. doi:10.1111/conl.12322
- Kenkel, J.A., T.D. Sisk, K.R. Hultine, S.E. Sesnie, M.A. Bowker, and N.C Johnson. 2016. *Indicators of vehicular emission inputs into semi-arid roadside ecosystems*. Journal of Arid Environments 134:150–159.
- Nowak, E.M., G.W. Schuett, T.C. Theimer, T.D. Sisk, and K. Nishikawa. 2015. *Does Short-Term Provisioning of Resources to Prey Result in Behavioral Shifts by Rattlesnakes?* Journal of Wildlife Management 79:357-372.
- Tallis, H., J. Lubchenco, and 238 coauthors (including T.D. Sisk). 2015. *A call for inclusive conservation*. Nature 515:27-28. [Note: This is a short comment paper that I played a small role in preparing, but I am a co-author.]
- Palen, W.J., T.D. Sisk, M.E. Ryan, J.L. Arvai, M. Jaccard, A.K. Salomon, T. Homer-Dixon, K.P. Lertzman. 2014. *Consider the global impacts of oil-sands development*. Nature 510:465-466.
- Ray, C.T., B.G. Dickson, T.D. Sisk, S.E. Sesnie. 2014. *Spatial application of a predicative wildlife occurrence model to assess alternative forest management scenarios in northern Arizona*. Forest Ecology and Management 322:117-126.
- Dickson, B.G., T.D. Sisk, S.E. Sesnie, R.T. Reynolds, S.S. Rosenstock, C.D. Vojta, M.F. Ingraldi, J.M. Rundall. 2014. *Integrating single- species management and landscape conservation using regional habitat occurrence models: the northern goshawk in the Southwest, USA*. Landscape Ecology 29:803–815.
- Singh, G.G., J. Tam, T.D. Sisk, S.C. Klain, M.E. Mach, R.G. Martone, and K.M.A. Chan. 2014. *A more Social Science: Barriers and Incentives for Scientists Engaging in Policy*. Frontiers in Ecology and the Environment 12:161–166.

- Bernstien, E.J., C.M. Albano, T.D. Sisk, T.E. Crews, and S. Rosenstock. 2014. *Establishing cool-season grasses on a degraded arid rangeland of the Colorado Plateau*. Restoration Ecology 22:57-64.
- Schultz, C.A., T.D. Sisk, B.R. Noon and M.A. Nie. 2013. *Wildlife conservation planning under the U.S. Forest Service's 2012 planning rule*. Journal of Wildlife Management 77:427-451.
- Noon, B.R., L.L. Bailey, T.D. Sisk, and K. McKelvey. 2012. *Efficient species-level monitoring at broad spatial scales*. Conservation Biology 26:432-441.
- Battin, J. and T.D. Sisk. 2011. *One-sided edge responses in forest birds following restoration treatments*. Condor 113:501-510.
- Sisk, T.D. 2011. *Seeding sustainability in the West*. Journal of Land, Resources and Environmental Law 31:79-100.
- Ries, L. and T.D. Sisk. 2010. *What is an edge species? The implications of sensitivity to habitat edges*. Oikos 119:1636-1642.
- Hurteau, S. R., T. D. Sisk, B. G. Dickson, and W. M. Block. 2010. *Variability in nest success, occupancy, and home range size of western bluebirds after forest treatments*. Forest Science 56:131-138.
- Muñoz-Erickson, T., B. Aguilar-González, M.R. Loeser, and T.D. Sisk. 2009. *A framework to evaluate ecological and social outcomes of collaborative management: Lessons from implementation with a northern Arizona collaborative group*. Environmental Management 45:132-144.
- Hannon, L. and T.D. Sisk. 2009. *Hedgerows in an agri-natural landscape: Potential habitat value for native bees*. Biological Conservation 142:2140-2154.
- Ries, L. and T.D. Sisk. 2008. *Butterfly edge effects are predicted by a simple model for a complex landscape*. Oecologia 156:75-86.
- Bowker, M.A., M.E. Miller, J. Belnap, T.D. Sisk, and N.C. Johnson. 2008. *Prioritizing Conservation Effort through the Use of Biological Soil Crusts as Ecosystem Function Indicators in an Arid Region*. Conservation Biology 22:1533-1543.
- Hurteau, S.R., B.G. Dickson, W. Block, and T.D. Sisk. 2008. *Fuel-reduction treatment effects on avian community structure and diversity*. Journal of Wildlife Management 74: 1168-1174.
- Xu, Y., J. Prather, H. Hampton, B. Dickson, J. Palumbo, and T. D. Sisk. 2007. *Effects of mismatches of scale and location between ground data and remote sensing imagery on forest structure mapping*. Photogrammetric Engineering and Remote Sensing 72:31-38.
- Binkley, D., T. C. Chambers, J. Springer, and W. Block. 2007. *The Role of old-growth forests in frequent-fire landscapes*. Ecology and Society 12:18.
- Lindemayer, D, and 26 Coauthors, incl. T. Sisk. 2007. *A checklist for ecological management of landscapes for conservation*. Ecology Letters 10:1-14.
- Prather, J.W., R. Noss, and T.D. Sisk. 2007. *Real versus perceived conflicts between restoration of ponderosa pine forests and conservation of the Mexican spotted owl*. Forest Policy and Economics 10:140-150.
- Muñoz-Erickson, T., B. Aguilar-González, and T.D. Sisk. 2007. *Linking Ecosystem Health Indicators and Collaborative Management: A Systematic Framework to Evaluate Ecological and Social Outcomes*. Ecology and Society 12:6.
- Loeser, M.E., T.E. Crews, and T.D. Sisk. 2007. *Impact of grazing intensity during drought in an Arizona grassland*. Conservation Biology 21:87-97.
- Sisk, T.D., A.E. Castellanos V., and G.W. Koch. 2007. *Ecological impacts of Wildlife Conservation Units (UMAs) policy in Mexico*. Frontiers in Ecology and the Environment 5:209-212.

- Lindell, C.A., S.K. Riffell, S.A. Kaiser, A.L. Battin, M.L. Smith, and T.D. Sisk. 2007. *Edge responses of tropical and temperate birds*. The Wilson Journal of Ornithology 119:205-220.
- Sisk, T.D., E.N. Aumack, H.M. Hampton, J. Prather, and Y. Xu. 2006. *Landscape analysis to link science and policy: ecological restoration of ponderosa pine forests in arid North America*. Landscape and Urban Planning 78:300-310.
- Brand, L.A., B.R. Noon, and T.D. Sisk. 2006. *Predicting abundance of desert riparian birds: Validation and calibration of the Effective Area Model*. Ecological Applications 116: 1090-1102.
- Dickson, B.G., Y. Xu, J.W. Prather, H.M. Hampton, E.N. Aumack, and T.D. Sisk. 2006. *Mapping the occurrence and probability of large fire ignitions in northern Arizona*. Landscape Ecology 21:747-761.
- Prather, J.W., N.L. Dodd, B.G. Dickson, H.M. Hampton, Y. Xu, E.N. Aumack, and T.D. Sisk. 2006. *Landscape models to predict the influence of forest structure on Tassel-eared Squirrel populations*. Journal of Wildlife Management 70:723-731.
- Noss, R.F., P. Beier, W.W. Covington, R.E. Grumbine, D.B. Lindenmayer, J.W. Prather, F. Schmiegelow, T.D. Sisk, and D.J. Vosick. 2006. *Integrating restoration ecology and conservation biology: a case study from Ponderosa Pine forests of the Southwestern USA*. Restoration Ecology 14: 4 -10
- Xu, Y., J.W. Prather, H.M. Hampton, B.G. Dickson, E.N. Aumack, and T.D. Sisk. 2006. *Advanced exploratory data analysis for mapping regional canopy cover*. Photogrammetric Engineering & Remote Sensing 72:31-38.
- Loeser, M.R., S. Mezulis, T. Theimer, and T.D. Sisk. 2005. *Vegetative cover and forb responses to cattle exclusion: implications for pronghorn*. Journal of Range Management 58: 234–238.
- Sisk, T.D., M. Savage, D.A. Falk, C.D. Allen, E. Muldavin, and P. McCarthy. 2005. *A landscape perspective for forest restoration*. Journal of Forestry 103:319-320.
- Loeser, M.R., T.E. Crews, and T.D. Sisk. 2004. *Defoliation increased above-ground productivity in a semi-arid grassland*. Journal of Range Management 57:442-447.
- Ries, L. and T.D. Sisk. 2004. *A predictive model of edge effects*. Ecology 85: 2917-2926.
- Ries, L., R.J. Fletcher Jr., J. Battin, and T.D. Sisk. 2004. *Ecological responses to habitat edges: mechanisms, models and variability explained*. Annual Review of Ecology, Evolution, and Systematics 35:491-522.
- Sisk, T.D. and J. Battin. 2002. *Habitat edges and avian ecology: geographic patterns and insights for western landscapes*. Studies in Avian Biology 25:30-48.
- Meyer, C. and T.D. Sisk. 2001. *Butterfly response to microclimatic changes following ponderosa pine restoration*. Restoration Ecology 9:453-461.
- Meyer, C., T.D. Sisk, and W.W. Covington. 2001. *Microclimatic changes induced by ecological restoration of ponderosa pine forest in northern Arizona*. Restoration Ecology 9:443-452.
- Schlosberg, D. and T.D. Sisk. 2000. *The environmental science/policy interface: Crossing disciplinary boundaries with a team-teaching experiment*. PS: Political Science and Politics 33:75-79.
- Sisk, T.D., N. Haddad, and P.R. Ehrlich. 1997. *Bird assemblages in patchy woodlands: Modeling the effects of edge and matrix habitats*. Ecological Applications 7:1170-1180.
- Imhoff, M.L. and T.D. Sisk. 1997. *Remotely sensed indicators of habitat heterogeneity: Use of synthetic aperture radar in mapping vegetation structure and bird habitat*. Remote Sensing of the Environment 60:217-227.
- Sisk, T.D. and J. Zook. 1996. *La influencia de la composición del paisaje en la distribución de Catharus ustulatus en migración por Costa Rica* (Influence of landscape composition on the

distribution of Swainson's thrush, *Catharus ustulatus*, migrating through Costa Rica). *Vida Silvestre Neotropical* 5:120-125.

- Austin, G., N. Haddad, C. Méndez, T. Sisk, and D. Murphy, A.E. Launer and P.R. Ehrlich. 1996. *Annotated checklist of the butterflies of Tikal National Park and vicinity, Guatemala (LEPIDOPTERA)*. *Tropical Lepidoptera* 7:21-37.
- Sparrow, H.R., T.D. Sisk, P.R. Ehrlich, and D.D. Murphy. 1994. *Techniques and guidelines for monitoring Neotropical butterflies*. *Conservation Biology* 8:800-809.
- Sisk, T.D., A.E. Launer, K.R. Switky, and P.R. Ehrlich. 1994. *Evaluating extinctions threats: the distribution of global biodiversity and the expansion of the human enterprise*. *BioScience* 44:592-604.
- Ehrlich, P.R., H.R. Sparrow, T.D. Sisk, and G.C. Daily. 1994. *Notes on butterfly distributions in southern Costa Rica*. *Tropical Lepidoptera* 5:21-24.
- Sisk, T. 1988. *Identifying threatened and endangered species: a global analysis*. *Endangered Species Update* 5(11):6.
- Sisk, T. and C. Vaughan. 1984. *Notes on some aspects of the natural history of the giant pocket gopher (*Orthogeomys MERRIAM*) in Costa Rica*. *Brenesia* 22:233-247.

Refereed Book Chapters (11)

- Castellanos-Villegas, A., L. Bravo, G. Koch, J. Llano, D. López, R. Méndez, J. Rodríguez, R. Romo, T.D. Sisk, and G. Yanes-Arvayo. 2010. Impactos ecológicos por el uso del terreno en el funcionamiento de ecosistemas áridos y semiáridos. In *Diversidad Biológica de Sonora*, F.M. Frenner, and T.V. Devender (eds.). UNAM-CONABIO. Hermosillo, Mexico.
- Sisk, T.D. 2007. Incorporating edges effects into landscape design. Pp. 151-164 in D. Lindenmayer and R. Hobbs (eds.) *Managing and designing landscapes for conservation: moving from perspectives to principles*. Blackwell Publishing, Ltd. Oxford. 587 pp.
- Sisk, T.D. 2007. Wild times in cow country: Working landscapes and conservation. In S. Silbert, G. Chanler and G.P. Nabhan (eds.) *Five ways to value working landscapes in the West*. Center for Sustainable Environments, Flagstaff, AZ.
- Hampton, H.M., E.N. Aumack, J.W. Prather, B.G. Dickson, Y. Xu, and T.D. Sisk. 2006. Development and transfer of spatial tools based on landscape ecology principles: supporting public participation in forest restoration planning in the southwestern U.S. by transferring knowledge into practice. Pp. 65-95 in A. Perera, L. Buse, and T. Crow (eds.) *Forest Landscape Ecology: Transferring Knowledge to Practice*. Springer, New York.
- Battin, J. and T.D. Sisk. 2003. Assessing landscape-level influences of forest restoration on animal populations. Pages 175-190 in P. Friederici (ed.) *Ecological restoration of southwestern ponderosa pine forests*, Island Press, Coevlo, CA.
- Sisk, T.D. and N.M. Haddad. 2002. Incorporating the effects of habitat edges into landscape models: Effective Area Models for cross-boundary management. Pages 208-240 in J. Liu and W. Taylor (eds.) *Integrating Landscape Ecology into Natural Resource Management*. Cambridge University Press, Cambridge.
- Sisk, T.D., B.R. Noon, and H. Hampton. 2002. Estimating the effective area of habitat patches in variable landscapes. Pp. 713-725 in J.M. Scott, et al. (eds.) *Predicting Species Occurrences: Issues of Scale and Accuracy*. Island Press, Washington.
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