

# James R. Strittholt, Ph.D.

Conservation Biology Institute 136 SW Washington Ave., Suite 202 Corvallis, OR 97333 Ph. 541-757-0687 stritt@consbio.org

Jim Strittholt is founder and served as Executive Director of the Conservation Biology Institute since 1997. In September, 2023 he changed his executive leadership role to Chief Science Officer. Jim has decades of experience in applying computer mapping technologies (including GIS and remote sensing) to address various ecological assessments and conservation planning projects in the U.S. and internationally. He has served as principle investigator on numerous projects including nature reserve designs, conservation gap analyses, forest and watershed assessments, endangered species planning, ecological modeling, internet tool development, and remote sensing applications in conservation. He has authored numerous reports, peer-reviewed articles, book chapters, and white papers. Areas of expertise include conservation planning, landscape ecology, forest conservation, vertebrate biology, geographic information systems, and remote sensing.

#### **EDUCATION**

- 1994 Ph.D. Conservation Biology Landscape Ecology from Ohio State University,
   Columbus, Ohio | <u>Dissertation</u>: "A Regional Nature Reserve Design Using
   Geographic Information Systems for the Edge of Appalachia, Adams County, Ohio"
- **1985 M.S. Zoology** from Miami University, Oxford, Ohio | <u>Thesis</u>: "*Population genetics of yellow perch in Lake Erie and selected impoundments*"
- 1980 B.S. Botany, B.A. Zoology, and Secondary Education Certification from Miami University, Oxford, OH

#### **EMPLOYMENT HISTORY**

Sep 2023 – present. **President and Chief Science Officer** for the Conservation Biology Institute, Corvallis, OR <a href="http://www.consbio.org">http://www.consbio.org</a>

Aug 1997 – Sep 2023. Founder, President, and Executive Director of the Conservation Biology Institute, Corvallis, OR

1994 - 1997. Founder and President of Earth Design Consultants, Inc., Corvallis, OR

1994 - 1995. **Ecologist for North American Wilderness Recovery, Inc.,** Portland, OR - Responsible for scientific research and technical advising for conservation planning.

1989 - 1993. **Graduate Researcher: Center for Mapping, The Ohio State University,** Columbus, Ohio & Presidential Fellow - Responsibilities included grant proposal writing, research project liaison, computer mapping and educational materials production.

1981 - 1989. **High School Science Teacher, Multiple school systems** OH and IN - Courses taught included Biology I, II, and International Baccalaureate, Human Anatomy & Physiology, Microbiology, Botany, Ecology, Environmental Science, Earth Science, and Chemistry.

1980 – 1981. Large Mammal Keeper at the Columbus Zoo, Columbus, OH. Animals under my care included primates (gorillas, orangutans, and chimps), bears, cheetahs, and a variety of South American mammals.

#### **PROFESSIONAL SKILL AREAS**

**Project Management:** Experienced in managing multi and interdisciplinary conservation research projects.

**Conservation Planning**: including Climate Change Adaptation, Conservation Gap Analysis, Vegetation Mapping, Landscape Ecology Applications, Forest Ecology, Vertebrate Biology, Parcel-based Mapping and Modeling, Watershed Analysis, Corridor Design, and Habitat Fragmentation Modeling.

**Geographic Information Systems**: Well-versed in computer mapping technologies, including web applications.

**Ecological Assessment and Field Biology**: terrestrial and aquatic vertebrates, vascular plants, and community ecology.

**Communications and Public Speaking**: 7 years high school and college teaching experience, experience in outdoor and natural history education via Hamilton County Park District, OH. and Columbus and Cincinnati Zoos, experience speaking to user groups and technical personnel through the OSU Center for Mapping.

## **SELECTED PROJECT EXPERIENCE:**

California Statewide Renewable Energy Science Support (2012 – present) - Serving as project PI on a wide range of science assessments and web-based applications for the CA Energy Commission, including modeling terrestrial intactness, plant and animal species distribution modeling, climate change assessments, wildfire, connectivity, invasive species, adaptive management, conservation planning, spatial data management, and web-based applications. Science leadership was provided for analyses and application development for climate change, least-conflict mapping for solar development, and conservation-development conflicts onshore and offshore.

**USDA Conservation Reserve Program** (2018 – present) – Serving as PI on a series of pilot projects to provide conservation science and online technical tools to serve participants in the largest private conservation program in the U.S.

Renewable Energy Opportunities and Constraints Assessment for Oregon (2020 – 2021) – Served as PI on a statewide renewable energy assessment for the State of Oregon for the Oregon Department of Energy, Oregon Department of Land Conservation and Development, and Department of Defense focused on the potential impact of solar and wind development (both onshore and offshore) on natural resources and the environment. Lead author on the final report

Integrated Regional Conservation and Development Initiative (IRCAD) (2017 – present) Working closely with the Strategic Growth Council, UC Davis, and other agency staff, served as senior scientist to conduct Regional Conservation Assessments (RCAs) for both terrestrial and aquatic conservation values for various parts of the state, including the Mojave Desert, Modoc Plateau, and Sacramento Valley. RCAs are designed to provide a standardized and current assessment of the biological values and ecological conditions within each ecoregion in California serving as the important context to carry out more effective and ecologically sensitive development in the state. All data from this effort is housed in Data Basin and a special web application called Replan is available to the public.

**BLM Rapid Ecoregional Assessments** (2011 – 2012) - Served as project manager and lead scientist for two Rapid Ecoregional Assessments (REAs) – Sonoran Desert and Colorado Plateau. Work involved addressing numerous and highly varied topics regarding the current status and future condition of these regions based on a series of conservation elements and examined change agents, including development, wildfire, invasive species, and climate change. Lead co-author on final reports and all data maintained on Data Basin.

### **SELECTED PUBLICATIONS**

- Janowitz, K. and J.R. Strittholt. 2023. Least-conflict solar siting on the Columbia Plateau. <u>A Report to the Washington State Legislature</u>. 103pp.
- Strittholt, J.R. and J.F. Strittholt. 2022. Map-based agricultural risk assessment for Ventura County, California. Part of <u>Ventura County's Resilient Agricultural Lands Initiative: A Strategic Plan to Build Community Resilience</u> presented and adopted by the Ventura County Department of Agriculture/Weights & Measures. 217pp.
- DellaSala, D., H. Keith, T. Sheehan, J.R. Strittholt, B. Mackey, M. Connolly, J.R. Werner, and A. Fredeen. 2022. Estimating carbon stocks and stock changes in Interior Wetbelt forests of British Columbia, Canada. Ecosphere 2022;13e4020. https://esajournals.onlinelibrary.wiley.com/doi/epdf/10.1002/ecs2.4020
- DellaSala, D., J.R. Strittholt, et al. 2021. Red-listed ecosystem status of interior wetbelt and inland temperate rainforest of British Columbia, Canada. Land 10(8): 775
  <a href="https://doi.org/10.3390/land10080775">https://doi.org/10.3390/land10080775</a>

- **Strittholt, J.R**. 2017. Coyote Valley Landscape Linkage: A Vision for a Resilient, Multi-benefit Landscape. Report to the Santa Clara Valley Open Space Authority. 50p.
- Lawler, J.J., Beier, P., Groves, G., Knight, G., Boyce Jr, D.A., Bulluck, J., Johnston, K.M., Klein, M.L., Muller, K., Pierce, D.J., Singleton, W.R., Strittholt, J.R., Theobald, D.M., Tombulak, S.C., and Trainor, A. 2015. Conserving Biodiversity: Practical Guidance about Climate Change Adaptation Approaches in Support of Land-use Planning. Natural Areas Journal 35(1): 190-203.
- **Strittholt, J.R.** 2016. Mapping Tech Key to Data Apps that Bust Silos. The Environmental Forum May/June 2016, p. 55.
- Bachelet, D., K. Ferschweiler, T. Sheehan, and J.R. Strittholt. 2016. Climate change effect on southern California deserts. Journal of Arid Environments 127:17-29.
- Pearce, D., J.R. Strittholt, et al. 2016. A Path Forward: Identifying Least-Conflict Solar PV Development in California's San Joaquin Valley. 80pp.
- DellaSala, D.A., R. Baker, D. Heiken, C.A. Frissel, J.R. Karr, S. Nelson, B. Noon, D. Olsen, and J.R. Strittholt. 2015. Building on two decades of ecosystem, management and biodiversity conservation under the Northwest Forest Plan, USA. Forests 6: 3326-3352.
- **Strittholt, J.R.** 2015. In the U.S. Southeast, Natural Forests Are Being Felled to Send Fuel Overseas. NRDC Report. October 25pp.
- White, M.D. and J.R. Strittholt. 2014. Forest Conservation Planning. Pages 205-226 in, K.M. Reynolds and P.S. Bourgeron (eds). Making Environmental Management Decisions: Applications of the Ecosystem, Management Decision Support System, Springer, Philadelphia, PA.
- **Strittholt, J.R.** and S. Leroux. 2012. A Methodological Framework for Protected Areas Planning in Support of the Canadian Boreal Forest Agreement. Prepared for the Science Committee and the National Working Group on Goals 2 and 3 of the Canadian Boreal Forest Agreement.
- Scheller, R.H., W.D. Spencer, H. Rustigian-Romsos, A.D. Syphard, B.C. Ward, and J.R. Strittholt. 2011. Using stochastic simulation to evaluate competing risks of wildfires and fuels management on an isolated forest carnivore. Landscape Ecology, 26: 1491-1504.
- Spencer, W.D. H. Rustigian-Romsos, J.R. Strittholt, R.H. Scheller, W. Zielinski, and R. Truex. 2011. Using occupancy and population models to assess habitat conservation opportunities for an isolated carnivore population. Biological Conservation 144:2, 788-803.
- Spencer, W.D., H. Rustigian, R.M. Scheller, **J.R. Strittholt**, W.J. Zielinski, and R. Truex. 2011. Establishing a habitat and population baseline for fisher (*Martes pennati*) for modeling future species viability in the southern Sierra, California. Ecological Applications.

- Staus, N.L., J.R. Strittholt, and D.A. DellaSala. 2010. Evaluating areas of high conservation value in western Oregon with a decision-support model.

  Conservation Biology 24(3): 711-720.
- Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J.R. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration. February 2010.
- **Strittholt, J.R.** and J. Tutak. 2008. Assessing the Impact of Ecological Considerations on Forest and Shrubland Biomass Projections for California. A report for the Natural Resources Defense Council.
- **Strittholt, J.R**. 2007. Potential Ecological Impacts from Proposed Hydroelectric Projects on the Baker and Pascua Rivers in the Aisén Region of Patagonia, Chile. Report to International Rivers.
- Strittholt, J.R. and M. Steininger. 2007. Trends in selected biomes, habitats, and ecosystems: Forests. Pages 35-62 in, H. Strand, R. Höft, J. R. Strittholt, N. Horning, L. Miles, and E. Fosnight (eds.), Sourcebook on Remote Sensing and Biodiversity Indicators. Secretariat of the Convention on Biological Diversity, CBD Technical Series No. 32.
- **Strittholt, J.R.** 2007. Coverage of protected areas. Pages 129-140 in, H. Strand, R. Höft, J. R. Strittholt, N. Horning, L. Miles, and E. Fosnight (eds.), Sourcebook on Remote Sensing and Biodiversity Indicators. Secretariat of the Convention on Biological Diversity, CBD Technical Series No. 32.
- **Strittholt, J.R.** and P. Lee. 2007. The Boreal Information Centre: Harvesting forest data. The Wildlife Professional, Fall 2007: 32-35.
- **Strittholt, J.R.**, D.A. DellaSala, and H. Jiang. 2006. Status of mature and old-growth forests in the Pacific Northwest, USA. Conservation Biology 20(2): 363-374.
- **Strittholt, J.R.** 2006. After the smoke clears ecological impacts of salvage logging. Pages 191-202 in, G. Wuerthner (ed.), The Wildfire Reader: A Century of Failed Forest Policy, Island Press, Washington, DC.
- Scott, J.M., T. Loveland, K. Gergely, **J.R. Strittholt**, and N.L. Staus. 2005. National Wildlife System: Ecological context and integrity. Natural Resources Journal 44(4): 1041-1066.
- Slosser, N.C., **J.R. Strittholt**, D.A. DellaSala, and J. Wilson. 2005. The landscape context in forest conservation: Integrating protection, restoration, and certification. Restoration Ecology 23(1):15-23.

- **Strittholt, J.R.**, S.A. Bryce, B.C. Ward, and D.M. Bachelet. 2012. Sonoran Desert Rapid Ecoregional Assessment Report. Prepared for the Bureau of Land Management. Denver, CO.
- Bryce, S.A., **J.R. Strittholt**, B.C. Ward, and D.M. Bachelet. 2012. Colorado Plateau Rapid Ecoregional Assessment Report. Prepared for the Bureau of Land Management. Denver, CO. 221 pp.
- **J.R. Strittholt**, S.A. Bryce, B.C. Ward, and D.M. Bachelet. 2012. Sonoran Desert Rapid Ecoregional Assessment Report. Prepared for the Bureau of Land Management, Denver, CO. 181 pp.
- **Strittholt, J.R.** and J. Tutak. 2008. Assessing the Impact of Ecological Considerations on Forest and Shrubland Biomass Projections for California. A report for the Natural Resources Defense Council.
- **Strittholt, J.R.** 2007. Potential Ecological Impacts from Proposed Hydroelectric Projects on the Baker and Pascua Rivers in the Aisén Region of Patagonia, Chile. Report to International Rivers.
- Spencer, W.D., H. Rustigian, R.M. Scheller, and J.R. Strittholt. 2007. Phase II Report: Baseline Evaluation of Fisher Habitat and Population Status in the Southern Sierra Nevada. Final report to the USDA Forest Service (Region 5). 95 pp.
- **Strittholt, J.R.** 2007. Review of the scientific justification of survey and manage policy as part of the Northwest Forest Plan. Prepared for the Western Environmental Law Center, Eugene, OR. 9 pp.
- **Strittholt, J.R.** and E. Rubin. 2007. Designing Critical Habitat: A Review. Report to Environment Canada. 48 pp.
- **Strittholt, J.R.** and J. Bergquist. 2007. High Conservation Values in the Middle Atlantic Coastal Forests Ecoregion. Report to the Dogwood Alliance. 41 pp.
- **Strittholt, J.R.**, N.L. Staus, G. Heilman, and J. Bergquist. 2007. Mapping high conservation value and endangered forests in the Alberta Foothills in using spatially explicit decision support tools. Report to Limited Brands. 66 pp.
- **Strittholt, J.R.** 2006. Forest Conservation Priority Setting for the Lake Region of Central Chile Using a Preliminary Endangered Forests Assessment. Report to the Fundación Chile. 47 pp.
- **Strittholt, J.R.** and P.A. Frost. 2006. Selecting Natural World Heritage Sites for the US A Draft Priority Setting Tool. Report commissioned by IUCN. 14 pp.
- **Strittholt, J.R.**, R. Nogueron, M. Alverez, and J. Bergquist. 2006. Intact Forest Landscapes of Alaska, USA. A report and electronic atlas by the World Resources Institute and the Conservation Biology Institute. 90 pp.

- Strittholt, J.R., D.A. DellaSala, E. Fernandez, P.A. Frost, and G.E. Heilman, Jr. 2005.

  Oregon's Legacy Wild Forests: Conservation Value of Oregon's Inventoried Roadless Areas. A report by the Conservation Biology Institute, World Wildlife Fund US, and Oregon Natural Resources Council. 23 pp.
- **Strittholt, J.R.** and H. Rustigian. 2005. Ecological impact assessment of urban development on the Santa Clara River Watershed. A report prepared for the Lawyers for Clean Water and Environment Now. 24 pp.
- **Strittholt, J.R.** and H. Rustigian. 2005. The Santa Clara River watershed, California. A report prepared or the Lawyers for Clean Water and Environment Now. 30 pp.