

# Tosha Comendant

## **Conservation Biology Institute**

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Dr. Comendant is a Senior Scientist and Director of Science Support and Communication with 15 years of experience in research, communication, and organizational capacity building. Her program and project work is at the nexus of conservation science and technology. She has a proven track record developing innovative methods, tools, databases, and science-based solutions that increase knowledge-transfer, enhance stakeholder engagement, and inform natural resource management decisions. Skills and experience include:

- Business development and client management
- Building and managing relationships and collaborative teams
- Cultivating impactful cross sector/public-private partnerships
- Publishing, presenting, proposal writing, and reporting
- Performance management and measurement
- Domestic/international/local/regional/global projects
- Training, facilitation, and media relations

**Specialties:** Ecology, evolution, protected areas and easements, online data sharing, visualization, and collaboration platforms and tools, island ecology, invasive species, herpetology, social media, inbound marketing, and landscape-scale informatics assessments.

#### **EDUCATION**

**Ph.D.**, University of California, Santa Cruz, Department of Ecology and Evolutionary **Biology**, **2002**. *Thesis*: Effects of Social Competition on Endocrine Function and Life-history Evolution in Female Morphs of the Side-blotched Lizard, *Uta stansburiana*.

Bachelor of Arts, University of California, Berkeley, College of Letters and Science, Department of Integrative Biology, 1990-1995.

#### APPOINTMENTS AND AWARDS

- 2015 current Board and Committee Chair, Society for Conservation GIS
- 2014 current Board, Napa County Watershed Information and Conservation Council
- 2014 current Community Partners for Projects, Napa Learns
- 2014 current Steering Committee Member, National Conservation Easement Database
- 2013 Landscape Conservation Cooperatives National Award, Primary Investigator
- 2004-2006 CA Mediterranean Research Learning Grant, National Park Service
- 2002-2003 University of California Presidential Postdoctoral Fellowship
- 2000-2001 GAANN Fellowship and Research Funding
- 2000 Gaines Memorial Research Award



1998 – UC Santa Cruz Biology Department Independent Study Grant

1993 - All Decade UC Berkeley and All Pac-10 Academic Team

1990 – UC Berkeley Kraft Scholarship (GPA top 5% freshman)

1990-1995 – Five-Year Athletic Scholarship to UC Berkeley (Volleyball)

### **EMPLOYMENT HISTORY**

2013 - current — **Director, Science Support and Communication, Conservation Biology Institute (based in Corvallis, OR), Napa, CA.** Supervised a team of science analysts, project managers, and communication specialists serving internal and external clients. Conducted board engagement, structured and facilitated workshops, and presented at conferences. Developed and oversaw implementation of CBI's communications strategy (traditional/new media) and supported CBI leadership in strategic planning. Created and delivered regular webinars and training for web-based data visualization and analysis platform. Successfully obtained funding to develop custom data sharing and stakeholder engagement tools.

2008 – 2013 – Senior Scientist, Conservation Biology Institute (based in Corvallis, OR), Napa CA. Served on leadership team and as primary point of contact for Data Basin (databasin.org, an open access data visualization and analysis tool with multimillion dollar funding from foundations, clients, and private donors), key external stakeholders, internal development team, and CBI leadership. Grew Data Basin active user base to over 12K members. Contributed to Data Basin system design, content development, outreach, partnerships, and strategic planning. Regularly presented at national conferences, workshops, and trained for thousands of webinar participants.

2004 - 2008 – Science Analyst, The Nature Conservancy, Lead Science Office, Arlington, VA. Conducted analysis on emerging science issues for TNC executives, leadership, and TNC board. Collaborated with staff to bolster TNC science and communication capacity. Conducted field research. Developed training materials to increase employee understanding of conservation science and organizational methods. Assisted in fundraising, donor relations, and delivered board presentations. Served as Editor of TNC's Science Chronicles, a monthly epublication featuring people, projects, and new developments in conservation science.

2002 - 2003 – **Presidential Postdoctoral Fellow, UC Office of the President, Santa Cruz, CA.** Conducted field research on demography, life history evolution, and impacts of rat eradication in Channel Islands, CA.

2000 – Lecturer, University of California, Santa Cruz, CA. Developed and taught behavioral ecology course.

1997 - 2000 – **Graduate Teaching & Research Assistant, UC Santa Cruz, CA.** Conducted fieldwork, experiments, and support for courses on evolution, ecology, and behavioral ecology.

#### SELECT PROJECT EXPERIENCE

2012 – current – **Powered by Data Basin (databasin.org): Delivering custom portals to support practical, science-based mapping and analysis.** Project manager for a growing



network of portals called Conservation Planning Atlases (CPAs) developed in collaboration with the Landscape Conservation Cooperatives (LCC) and stakeholders. The CPAs are science-support and collaborative engagement platforms to facilitate collaboration across organizational and geographical boundaries. The Atlases allow users to integrate, analyze, and communicate about the distribution, status, trends, risks, threats, and factors affecting priority wildlife, plants, cultural resources, and ecosystems. LCC project partners include North Atlantic, South Atlantic, Gulf Coastal Plains and Ozarks, Gulf Coast Prairie, Southern Rockies, North Pacific, Desert, California, Western Alaska, Arctic, Northwest Boreal, Aleutian and Bearing Sea, Great Basin, Caribbean, Peninsular Florida, and Pacific Islands Climate Change Cooperative. Managed development of additional portals, including USFWS Pacific Southwest Region, Yellowstone to Yukon, Heart of the Rockies, Two Countries One Forest, AdaptWest, and Avian Boreal Bird Modeling Project.

2008 – 2011 – **Project Coordinator, Data Basin**. Provided input on design, strategy, and database development. Lead for outreach, training, and stakeholder engagement. Data Basin has grown to include a community of thousands of users using many thousand spatial datasets, and continues to grow daily.

2005 – **Regional Science Capacity Assessments, The Nature Conservancy.** Evaluated organizational science capacity across four global regions of The Nature Conservancy. Lead role in developing workshops, expertise databases, and final regional reports for executive management.

### PROFESSIONAL REGISTRATIONS AND PERMITS

Society for Conservation Biology Society for Conservation GIS Napa Valley Land Trust

## **PUBLICATIONS**

- Contributor to report submitted by Johnston, J. and Gallagher, K. T to the Secretary of the Interior. Recommendations from the workshop on optimizing and improving geospatial services to support landscape scale mitigation. Convened jointly by the USGS Core Science Systems Mission Area and the DOI Office of the Chief Information Officer on October 22, 2014 in Washington, DC.
- Foster, K., **T. Comendant**, and M. Lundin. 2014. Protecting Natural Vegetation: Comparative Analysis of Land Protection Mechanisms. Report to US Forest Service Forest Inventory and Assessment (FIA)
- Bachelet, D. and Data Basin team (J. Strittholt, **T. Comendant**, B. Ward, M. Lundin, N. Stevenson-Molnar, T. S.E. Marvin, D. Harvey, K. Foster, and S. Atkuru. 2015. Book Chapter in Global Vegetation Dynamics: Concepts and Applications in the MC1 Model, Geophysical Monograph 213, First Edition. John Wiley & Sons, Inc.
- Bachelet, D., **T. Comendant**, and J. Strittholt. 2011. Web platform for sharing spatial data and manipulating them online. *EOS, Transactions American Geophysical Union* 92(14): 118-119.



- Kiesecker, J. M., Amaon, G., **Comendant, T**. Grandmason, T., Gray, E., Hall, C., Hilsenbeck, R., Kareiva, P., Lozier, L., Naehu, P., Rissman, A., Shaw, M. R., Zankel, M. 2007. Conservation Easements in Context: A quantitative analysis of their use by The Nature Conservancy. *Frontiers in Ecology and the Environment* 5(3): 125–130
- Bleay, C., **Comendant, T.**, and B. Sinervo. 2007. An experimental test of frequency-dependent selection on male mating strategy in the field. *Proceedings of the Royal Academy of Science* 274(1621), 2019-2025.
- Rissman, A. R., Lozier, L. **Comendant, T.,** Kareiva, P., Kiesecker, J. M., Shaw, R. M. and A. M. Merenlender. 2007. Biodiversity protection and private use on conservation easements *Conservation Biology*, 21(3), 709-718.
- Sinervo, B., Calsbeek R., Comendant, T., Both, C., Adamopoulous, C., and Clobert, J. 2006. Genetic and maternal determinants of effective dispersal: The effects of sire genotype and size at birth in side-blotched lizards. 2006. *American Naturalist* 168: 88-99.
- **Comendant, T.**, B. Sinervo, E., Svensson, J. Wingfield. Social competition, corticosterone, and survival in female lizard morphs. 2003. *Journal of Evolutionary Biology* 16: 948-955.
- Donlan, C. J and **T. Comendant**. 2003. Getting rid of rats. *E! The Environmental Magazine* September/October.
- Svensson, E., B. Sinervo, and **T. Comendant.** 2002. Mechanistic and experimental analysis of condition and reproduction in a polymorphic lizard. *Journal of Evolutionary Biology* 15, 1034-1047.
- Svensson, E., B. Sinervo, and **T. Comendant**. 2001. Condition, genotype-by-environment interaction and correlational selection in lizard life-history morphs. *Evolution* 55 (10), 2053-2069.
- Svensson, E., B. Sinervo, and **T. Comendant**. 2001. Density dependent competition and selection on immune function in genetic lizard morphs. *Proceeding of the National Academy of Science* 98: 12561-12565.
- Sinervo, B. E. Svensson, and **T. Comendant**. 2000. Oscillations in density-dependent selection and a cyclical offspring quantity and quality game. *Nature* 406: 985-988.

## RECENT PRESENTATIONS

- Landscape Conservation Cooperative Planning Atlases Powered by Data Basin, Symposium at Practitioners Network on Large Landscape Conservation in 2014.
- Protecting Natural Vegetation: Comparative Analysis of Land Protection Mechanisms. Presented at Ecological Society of America Annual Meeting in 2014.
- Data Basin: Data, Tools, and People. Invited presentation at Health and Environmental Funders Symposium in 2014.
- Data Basin: Access to Spatial Data Tools, and Social Networks for Landscape Conservation.

  Organized a workshop at Ecological Society of America Annual Meeting in 2014.



- Integrated Landscape Conservation Cooperative (LCC) Planning Atlases Powered by Data Basin: Building Collaborative Solutions. Presented poster at National Conference and Global Forum on Science, Policy and the Environment: Building Climate Solutions in 2014.
- Principles and Best Practices Emerging from Data Basin: A Data Platform Supporting Scientific Research and Landscape Conservation Planning. Poster presented at American Geophysical Union (AGU) Annual Conference in 2013.
- Build It, But They Might Not Come: Work Needed to Engage Resource Managers. Poster at American Geophysical Union Chapman Conference Communication Climate Change: A Historic Look to Future in 2013.
- Data Basin: A World of Conservation Resources. Society for Conservation Biology: North America Conference in 2012.