# Matt Keene

## Realizing human values through nature and technology

**My work is focused at the nexus of evaluation, sustainability and systems thinking.**

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## Professional Experience

### U.S. ENVIRONMENTAL PROTECTION AGENCY                    2006 – Present

**Social Scientist**

As an evaluation researcher, practitioner, and trainer and as a curator of professional networks and communities of practice focused on advancing the state of the art, I have increased the capacity for evaluation at EPA, the environmental sector and the discipline of evaluation.

At EPA, I've led the design, management and delivery of a wide variety of evaluation types (e.g. process, outcome, impact). I've also led, managed and advised on communications and planning with client offices as well as delivery of products, results and recommendations to office directors and staff across the agency. As a participant and lead on teams of EPA staff, consultants and non-EPA stakeholders (e.g. nonprofits, States, private sector), I introduced the use of diverse qualitative and quantitative methods and a range of approaches (e.g. utilization, theory-based, systemic, participatory) to answer evaluation questions about effectiveness, improvement, collaboration, awareness, behavior, implementation and measurement. I've developed and delivered training and technical assistance to the Agency in logic modeling, evaluation and measurement. Evaluations delivered include: Petroleum Refineries Priorities Strategy, Clean Marinas Initiative, Temporally Integrated Monitoring of Ecosystems and Long-term Monitoring Programs, Paint Product Stewardship Initiative, Ocean Dumping Program.

As the dynamics and complexity of EPA evaluation questions increased in complexity, I introduced tools, methods and approaches based on systems thinking to Agency evaluations (e.g. fuzzy logic models). To advance the state of the art and maintain the Agency's connection to it, I co-founded, coordinate and lead the design, planning, management and development of the Environmental Evaluators Network in the US and abroad, including the delivery of large and small conferences, workshops, peer reviewed publications, blog posts, presentations, social media and websites. To increase EPAs capacity for cutting edge evaluation and evidence-based decision making, I initiated relationships and developed products with leaders from academia, government, consultancy, non-profits, philanthropy and international institutions working in diverse fields including education, law, complexity science, conservation, network science, citizen science, development and artificial intelligence.

I've chaired and delivered panels and presentations as an invited speaker in the US and internationally at over 30 conferences (e.g. American and European evaluation societies, Society for Conservation Biology) and at government agencies (US State and Federal, European Environment Agency) and universities about the state and future of evaluation. EPA Agency-wide Honor Award Winner for "Outstanding Leadership in Collaborative Problem-Solving". Expert panel member of National Science Foundation supported "Evaluation Communities of Learning, Inquiry, and Practice about Systems (ECLIPS)" 2012- 2013. I mentored and managed the work of 10 graduate student interns and fellows and advised 3 Masters student theses.

## AMERICAN EVALUATION ASSOCIATION                              2012-2014
**2014 Program Chair**

With 8,000 members and 4,000 participants at its annual conference, the American Evaluation Association (AEA) is the largest and most influential of the world's 135 national evaluation societies.  As 2014 Program Chair, AEA president, Beverly Parsons, asked me to leverage my professional networks and expertise in sustainability, evaluation and systems thinking to introduce and establish sustainability as a premiere issue for the evaluation community. We curated the 2014 theme "Visionary Evaluation for a Sustainable, Equitable Future" to position systems thinking and sustainability as crucial to evaluation's capacity to serve society. I led, facilitated or assisted the design, development and delivery of the 30 Presidential Strand conference sessions and the Presidential Keynote Address, including A Sustainability Manifesto for Evaluation.  I am co-editing and contributing three chapters to "Visionary Evaluation," a book co-created by a team of authors from technology, art, law, philanthropy, health and other sectors.

## ENVIRONMENTAL EVALUATORS NETWORK                      2007-Present
**Founder and Coordinator**

To help the EPA and the environmental sector meet the increasing demands for evaluation and evidence of its effectiveness, I founded, manage and coordinate the Environmental Evaluators Network (EEN). I facilitated EEN's agreement on its stated purpose: to advance the practice, theory and policy of environmental evaluation through more systematic and collective learning among evaluators and evaluation users. As the host, co-host, facilitator and/or advisory board member of more than 20 EEN events in the US, Mexico, Europe and Canada totaling thousands of participants representing hundreds of organizations, disciplines, issues and locations – there are 2700 EEN LinkedIn members – I've developed relationships with researchers, practitioners and policy makers working in conservation, natural resources management and environmental protection.

These relationships have resulted in research, publications, websites, presentations and capacity building initiatives that have enhanced the relationship between the evaluation and environmental communities. In 2011 I began leading discussions about an Architecture of Environmental Evaluation (ArchEE) – a collaborative space that leverages the power of evaluative knowledge for better decisions, evaluation, evidence-based management and transfer and use of evaluative knowledge. At conferences in the US and Europe, I have delivered presentations about the theory underpinning ArchEE: the lifecycle management of evaluative knowledge. In 2015, I partnered with the European Environment Agency to plan, organize and host a 2-day ArchEE design workshop including participants from 25 environmental organizations.

## THE SILWOOD GROUP                                          2014-Present
**Founder and Coordinator**

I partnered with Dr. Andrew Knight at Imperial College London to create The Silwood Group (TSG), a transdisciplinary team focused on improving the effectiveness of biodiversity conservation. TSG members are world leaders from the disciplines of evaluation, systems sciences and conservation biology working in academia, government and consultancy. Current planning, decision making and evaluation approaches are often poorly matched to the complexity or "wickedness" of current conservation and sustainability challenges at the intersection of ecological and social systems. To address the mismatch, I am facilitating TSG's synthesis of learning, methods, tools, knowledge and theory from diverse disciplines to develop a form of praxis that is founded upon stakeholder values; humility; systemic,

**EnviroEvalNet**

evaluative inquiry; and wisdom in judgement and action. I am leading TSG's application of its praxis to deliver workshops, presentations, papers, blogs, and webinars, including the completion of two peer reviewed articles as well as the design and facilitation of a symposium and a workshop titled "Improving Conservation through Systemic Evaluation and Conservation Praxis" at the 2015 International Congress for Conservation Biology in Montpellier, France.

### INTERNATIONAL SOCIETY FOR EVALUATION AND ARTIFICIAL INTELLIGENCE                      2016 – Present

**Founder**

I founded the International Society for Evaluation and Artificial Intelligence (ISEAI) to develop mutually beneficial relationships between the evaluation and artificial intelligence communities. Machine intelligence will help evaluation to transform Big Data into Big Understanding for society, particularly initiatives at the global scale and at the intersection of social and ecological systems. Likewise, the AI community's attempts to align its advances with human values will benefit from collaborations with evaluators, whose profession designs and uses sets of methods, tools, skills and philosophies to improve the effectiveness of human action in terms of human values. Participants at the first meeting of ISEAI in Atlanta in October 2016 began these conversations and identified next steps for ISEAI, including drafting a white paper about the relationship between evaluation and AI and submitting a proposal for a second ISEAI meeting at AEA's 2017 annual conference in Washington, DC.

### JUNKYARD DOGFISH CONSULTING                                                           2005
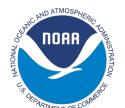
**Conservation Consultant**

Researched and communicated market-based, temporal, and spatial policy alternatives for the Gulf of Mexico shrimp fishery; prepared recommendations for a nonprofit designed to enhance stakeholder involvement and sustainability in the fishery (pre- and post-Hurricane Katrina). Advised on the importance and fundamental principles of measurement, evaluation, and adaptive management in the early stages of strategic and operational planning. Worked independently and with a team to prepare a written report providing an overview of the Gulf fishery, global shrimping industry, management processes, recent social and economic trends, and action options for stakeholder groups.

### NATIONAL FISHERIES CONSERVATION CENTER                                               2005

**Conservation Consultant**

Collaborated with an interdisciplinary team of marine conservation experts (marine scientists, coastal managers, and attorneys) to research and prepare draft language for the California Marine Life Protection Act (MLPA) Master Plan. Conducted a complete literature review of the science and technology of protected areas and marine protected area networks that have been implemented or proposed at local and international scales. Wrote and edited reports that summarized and compared approaches to protected area design and management.

### NOAA COASTAL SERVICES CENTER                                                          2004

**Protected Area Specialist**

As a team leader, worked with the Florida Aquatic Preserve Leadership Team and NOAA Coastal Services Center personnel to design and deliver a training program about system level processes for writing protected area management plans. Used participatory training modules to introduce and review strategic planning, management plan design, resource assessment, planning processes, stakeholder participation, management effectiveness evaluation, logic models and performance measures.

### DUKE UNIVERSITY                                                  2004 – 2005

**Master's Project – Protected Area Management Effectiveness**

Collected and analyzed thirty protected area management effectiveness evaluation methodologies used by international institutions, NGOs, national governments, and managing agencies. Formulated and applied qualitative and quantitative analytical tools to describe and classify the variety of methods. Proposed a balance of bottom-up and top-down mechanisms for measuring success and adoption of a management regime for a global system of protected area networks.

### MARINE INFORMATION RESOURCES CORPORATION          2003 – 2004

**Scientific Writer**

Contributed fifty articles on marine conservation and ecology to a marine science encyclopedia. Used science databases, text books and personal communications to research, write, and edit articles on a range of topics, including coral reef ecology, coral reef fish, algae, zooxanthellae, and mollusks.

### PARKSWATCH                                                      2002 – 2003

**Protected Area Analyst & Research Assistant**

Wrote, edited, and analyzed reports and data for a non-profit monitoring organization that conducts on-the-ground evaluations of protected areas in Latin America. Collaborated with field investigators to collect and organize data and information, recorded on-site accounts of effectiveness, and wrote evaluation reports.

### GOLDEN GATE NATIONAL PARKS CONSERVANCY
### & NATIONAL PARK SERVICE                                         2001 – 2002

**Restoration Ecology Intern**

Coordinated and led environmental education and outreach programs, community volunteer restoration efforts, and a variety of ecological restoration operations. Designed and presented environmental and conservation lessons to academic and cultural enrichment programs for urban middle school students. Provided environmental education to neighborhoods involved in land mitigation projects. Learned and applied principles of native and invasive plant ecology to carry out and provide feedback on park management plans.

### PROYECTO CAMPANARIO                                                    1999

**Protected Area Program Coordinator (Osa Peninsula, Costa Rica)**

Assisted day to day work of visiting researchers and managed ecotourism activities and education programs at a tropical coastal protected area on the Osa Peninsula of Costa Rica. Drafted a tropical ecology handbook.

**A Few Publications and Presentations**

Parsons B., Keene M. & Dhillon L. (Eds.). (2017). *Visionary Evaluation for a Sustainable, Equitable Future.* Information Age Publishing. *(in preparation)*

The Silwood Group – Cook C.N., Knight A.T., Redford K.H., Biggs D., Reynolds M., Parsons B., Norman C.D., Eoyang G., Keene M. (2017). Introducing a Praxis for Effective Conservation. Conservation Letters. *(submitted)*

The Silwood Group – Keene M., Norman C.D., Knight A.T., Redford K.H., Biggs D., Reynolds M., Eoyang G., Cook C.N., Parsons B. (2017). Applying a Praxis for Effective Conservation: Great Lakes Stewardship. *(in preparation)*

Keene M., Parsons B. & McAleavey P. (2016). Visionary Evaluation for a Sustainable, Equitable Future. American Evaluation Association *(presidential strand presentation),* Atlanta Georgia, 10/26-29/16.

The Silwood Group. (2015). Improving Conservation through Systemic Evaluation and a Conservation Praxis. Symposium and workshop, chaired by Keene M, conducted at the 27th International Congress for Conservation Biology and 4th European Congress for Conservation Biology 8/2-6/16, Montpellier, France.

Wright D, Underhill L, Keene M, Knight A. (2015). Understanding the Motivations and Satisfactions of Volunteers to Improve the Effectiveness of Citizen Science Programs. *Society and Natural Resources*, Volume 28, Issue 9, August 2015.

Keene M. (2012). The Wisdom of Evaluation. Keynote address at the European Environmental Evaluators Network Forum, Leuven Belgium, 2/12.

Keene M. (2012). The Wisdom of Evaluation. Keynote address at the Environmental Evaluators Network Forum Mexico, Xalapa Veracruz, 7/12.

Knowlton LW, Phillips CC. (2011). The Logic Model Guidebook: Better Strategies for Great Results, 2nd Edition. Sage Publishing. (Contributed section on Fuzzy Logic Models)

Keene M. & Pullin A. (2011). Realizing an Effectiveness Revolution in Environmental Management. *Journal of Environmental Management.* Volume 92, Issue 9, September 2011, Pages 2130-2135.

Keene M. (2012). Realizing an Effectiveness Revolution in Environmental Management. European Congress of Conservation Biology, Glasgow Scotland, 8/28-9/1/12.

Keene M. (2011). The Collaboration for Environmental Evidence: Building an Evidence-base for Environmental Management. North American Benthological Society, Providence RI, 5/20-24/11.

Keene M, Blumstein DT. (2010). Environmental Education: A Time of Change, A Time for Change. *Journal of Evaluation and Program Planning.* Volume 33, Issue 2, Pages 201-204.

Williams B, Nichols R (Eds.). (2009). Encyclopedia of Marine Science. Infobase publishing. (Contributed 50 articles)

## Education

**DUKE UNIVERSITY**

**Durham, NC - May 2005**
**Master of Environmental Management**
Nicholas School of the Environment & Earth Sciences

**VIRGINIA TECH UNIVERSITY**

**Blacksburg, VA - May 1998**
**Bachelor of Science, Biology**
Summa Cum Laude

## A Few Passions

Ocean, surfing, fishing, woodworking, birding, veggie gardening, cooking (not baking), the effectiveness of everything.

*Sí, hablo un poco de español ... y después de vivir y visitar muchos países de América Latina y el Caribe, estoy listo y capaz de aprender rápidamente.*