### ACES 2014 Afternoon Workshop 8 December 8, 2014 | 1:00pm-4:30pm

#### Title: Ecosystem Valuation Toolkit: Online Tools for Valuing Natural Capital

### **Description:**

This workshop will provide attendees with the opportunity to get an overview of and experience with workflow of the Ecosystem Valuation Toolkit (EVT). The EVT is a web-based, comprehensive collection of online tools and resources for economic valuation of natural capital. It also contains the world's largest, spatially explicit repository of peer-reviewed economic values for ecosystem services. EVT will permit users anywhere in the world to conduct and collaborate on ecosystem service valuation on multiple scales.

The workshop will also include discussion and examples of how EVT outputs have been applied to drive real world standards and significant changes in investment, and even adoption in federal policy.

# Note: Participants are encouraged to bring a laptop computer to participate in this workshop. All operating systems are acceptable.

#### **Goals and Technical Focus:**

This 3-hour workshop will allow participants to engage with and provide feedback on key areas of the Ecosystem Valuation Toolkit. The components of the toolkit that will be demonstrated in the course of the workshop include:

- **Calculating and reporting ecosystem service values:** tools that allow for easy calculations and reports of aggregate values for ecosystem services
- **Finding and selecting values:** various ways to search and filter through the thousands of ecosystem service valuation studies and values in our repository
- How values are added: the processes by which ecosystem service values are captured, reviewed, and tracked in a structured and rigorous way

#### Agenda:

The workshop duration will be 3 hours.

- **Presentation: EVT Overview**: The workshop will begin with an overview of the toolkit, including a brief history of its evolution, a description of appropriate uses and caveats, highlights of several applications including FEMA's adoption of EVT values, and an overview of related tools that will be covered in greater depth in the remainder of the workshop. (20 min)
- **Guided Tour -- How to gather data with EVT:** The first demonstration will be centered around how data is added to the EVT repository, and how it is approved for use (20 min)
  - o Directly transcribing a valuation study containing one or more values
  - o Importing values from other repositories
  - Reviewing /approving or rejecting a study
  - Viewing changes and update tracking

- **Discussion -- Criteria for value selection:** After a brief presentation of different criteria that can be used for selecting a value for use in ecosystem service valuation, we'll pause to discuss in more depth how EVT users can and should select appropriate values and ways that the EVT currently facilitates and might better guide these decisions. (25 min)
- **Guided tour -- Value selection:** Armed with a clear understanding of the value selection process, participants will be introduced to the tools that allow identification and selection of values for inclusion in an ecosystem service valuation, and how to search for and create their own custom set of values. The following features will be highlighted: (25 min)
  - Searching the EVT repository
  - Filtering and sorting values
  - Viewing and updating value data
  - Creating and saving custom filters and datasets
- 2:30 3:00 pm BREAK (30 min)
- **Discussion** -- **Benefit-Transfer calculations:** A brief overview of how aggregate ecosystem service values may be calculated will be given. The group will then discuss the best uses and caveats of this approach. (25 min)
- **Guided tour** -- **Calculation and reporting:** Using the datasets created in the previous step, users will be able to execute calculations and see reports of ecosystem service values. Report types will include: (25 min)
  - Annualized values per unit area
  - o Annualized values over a specific area of interest
  - Asset values per unit area
  - $\circ$   $\;$  Total asset values over a particular area of interest and timespan
- **Discussion -- Applications and future directions:** Participants will have the opportunity to share and discuss potential applications for EVT outputs, their feedback on the tool, and their recommendations on priorities for future EVT development or integration with other tools and services. (40 min)

# Audience and Appeal:

This workshop will appeal to two primary groups of individuals:

- Practitioners who prepare and present arguments for the value of nature and are interested in tools that simplify the process of researching and communicating the value of natural capital assets to decision-makers, with the aim of driving significant shifts towards investment in those assets. This may include planners, watershed managers, natural resource agencies, businesses, and many others.
- Researchers and scholars who perform economic analysis of the value of natural capital who would like to see their data used to influence decision-making around the world.

# **Organizers:**

Jonathan Kochmer – Earth Economics – Director of Research and Development Jkochmer@eartheconomics.org

**Nora Wahlund** – Earth Economics – Research Analyst & Software Tester <u>nwahlund@eartheconomics.org</u>

**David Batker**– Earth Economics – Executive Director and Chief Economist dbatker@eartheconomics.org

**Tania Briceno** – Earth Economics – Senior Economist <u>tbriceno@eartheconomics.org</u>

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#### **Qualifications/Presenter Biographies:**

**Jonathan Kochmer** holds an M.Sc. / M.Phil. from Yale University in Evolutionary Ecology with a minor in Biostatistics. His research has been on speciation, phylogenetic constraints on the evolution of flowering phenology, consequences of mate selection, the effects of climate change on indigenous cultures of the Arctic (University of Washington Forestry School), and biological control of invasive species such as Gorse, Gypsy Moth and the Alfalfa Weevil (USDA). Shortly before completing his Yale Ph.D. he was hired by NSF and the University of Washington where he was a consultant for supercomputing, statistics and the Internet, and wrote an influential Internet manual, The Internet Passport, and a book on the use of the Internet in national K-12 curriculum development. His technical experience was deepened during five years at Amazon, where he helped develop the browse system with nearly 300,000 categories for books, and worked in the teams that developed the company-wide data model and the data warehouse and data mining infrastructures. Jonathan's activities at Earth Economics include Information Architecture of EVT and establishing and maintaining relationships with many of our Academic and NGO partners.

**Nora Wahlund** is a graduate of the University of Puget Sound with a degree in Spanish and International Affairs and a minor in Economics. Nora joined Earth Economics as an intern in November 2011 and was hired in June 2012. She is interested in ecological economics and conveniently had some software testing experience from high school. As an outdoor recreation enthusiast she is excited to work to protect our natural resources. Nora helps the Ecosystem Valuation Toolkit team accomplish all that they have to do to keep everything running smoothly.

**David Batker** is the co-founder and Executive Director of Earth Economics. He completed his graduate training in economics under Herman Daly, one of the world's foremost ecological economists. Leading the Earth Economics team, David pioneered path-breaking studies showing the value of natural systems for buffering hurricane and flood impacts. These values, adopted by the Federal Emergency Management Agency (FEMA) are used in nearly all post-storm FEMA expenditure decisions. David is working to change national accounting rules to count the natural systems that produce and filter water. He has advised the US government on greening 436,000 federal buildings. He is working with the Earth Economics team developing a practical web-based tool to establish consistent values for nature's benefits, establishing new funding mechanisms for conservation and has worked on international projects in over 40 countries. David co-authored a book with John de Graaf, entitled <u>What's the Economy for, Anyway?</u>, which has ranked in the top ten economics and business books by the New York Book Review.

**Tania Briceno** received her PhD from the Université de Montréal. Her recently completed PhD thesis was on the integration of ecological principles in environmental valuations. She did a Masters in Ecological Economics at University of Leeds, focusing on the social dynamics of sustainable consumption systems and a Bachelor's in Economics and International Development at McGill University. She has worked in various projects with the Canadian government carrying out environmental valuations applied to agricultural systems, climate change adaptation programs, and land-use planning. She also has experience with the use of life-cycle assessments in the North American and European contexts. She is fluent in English, Spanish and French and has a multicultural background.