

# Kenneth J. Bagstad

## Curriculum Vitae

---

---

81 Carrigan Drive  
Burlington, VT 05405

(802) 656-2496  
kbagstad@uvm.edu

---

### Education

**PhD** (In progress), Natural Resources (Certificate in Ecological Economics), University of Vermont – Burlington, VT

Dissertation: Applied ecological economics for urban and regional sustainability

**M.S.** 2002, Plant Biology (Concentration in Ecology), Arizona State University – Tempe, AZ

Thesis: Herbaceous plants as bioindicators of groundwater decline for the San Pedro River, AZ

**B.A.** 1999, Botany & Environmental Studies, Zoology minor, Ohio Wesleyan University – Delaware, OH.

*summa cum laude*, Phi Beta Kappa

### Additional relevant coursework:

Introductory Macroeconomics; Introductory Microeconomics  
Public Finance; Intermediate Macroeconomics

City Colleges of Chicago, 2003  
Northeastern Illinois University, 2004

---

### Employment History and Research Experience

#### 2005 – Present: University of Vermont, Burlington, VT – Research Assistant

- Research on ecosystem services and quality of life across urban-rural gradients
- Development of land use/land cover classification system to improve economic value transfer for ecosystem service valuation
- GIS-based ecosystem service valuation
- Valuation of ecosystem goods and services provided by coastal Louisiana's wetlands
- Research on economic, social, and environmental quality, calculating the Genuine Progress Indicator for Northern Vermont
- Ecological economic modeling of global ecosystem services using Stella and Simile

#### 2002 – 2005: Montgomery Watson Harza, Chicago, IL – Environmental Scientist/Botanist

- Developed and implemented restoration and ecological management plans for native prairie, wetland, savanna, and coastal ecosystems
- Wetland scientist responsible for completing wetland delineations, permitting, mitigation design, ecological monitoring, and report writing.
- Conducted vegetation surveys, habitat assessments, and threatened and endangered species surveys
- Prepared environmental assessments and environmental impact statements in accordance with the National Environmental Policy Act (NEPA)
- Project manager and technical assistant for proposal development

#### 1999-2002: Arizona State University, Tempe, AZ – Research Assistant

- Conducted study of vegetation-hydrology relationships for herbaceous riparian plant communities of the San Pedro River, Arizona
- Set up study sites and sampling protocol
- Conducted seasonal vegetation sampling, collecting and identifying over 400 plant species
- Statistically analyzed data and prepared reports and publications
- Hydrologic, geomorphic, and soils investigations, including soil sampling and analysis, floodplain channel surveying, installation of piezometers, and groundwater monitoring
- Participant in ASU neotropical flora course, including two weeks of plant collection in lowland rainforests and montane cloud forests of Costa Rica; identified and prepared specimens for ASU and Costa Rican herbaria

**1998: Harvard University/Harvard Forest, Petersham, MA – Undergraduate Research Assistant**

- Measured forest ecological processes, including tree growth, soil respiration, canopy leaf area, and leaf nutrient concentrations.
- Assisted with development of a carbon budget for this temperate mixed forest

**1997-1999: Ohio Wesleyan University, Delaware, OH – Undergraduate Research Assistant**

- Assisted in herbarium research, including curation, design and maintenance of databases and web pages
- Conducted taxonomic study of several species of South American *Xylopi* (Annonaceae)
- Awarded Ohio Wesleyan University Kraus-Decker Fellowship in forest ecology; studied distribution of soil microbes at OWU – Kraus Forest Reserve

## Teaching Experience

**2006: University of Vermont, Burlington, VT – Discussion Section Facilitator**

- Led discussion section for freshman course, “Race and Culture in Natural Resources”
- Selected weekly readings and facilitated discussion on race and cultural issues in the environmental field

**2006: University of Vermont, Burlington, VT – Instructor**

- Co-taught, with another PhD student, a course in Environmental Problem Analysis
- Developed and delivered course material and advised student groups in developing projects to integrate natural science and socioeconomic aspects of varied environmental issues

**2000-2001: Arizona State University, Tempe, AZ – Teaching Assistant**

- Taught laboratory sections for non-majors botany and introductory biology for majors courses
- Recognized by ASU admissions for excellence in teaching

## Publications

Bagstad, K.J. and M. Ceroni. In review. Socioeconomic well-being in the Northern Forest: Estimates of the Genuine Progress Indicator (GPI) for northern Vermont. Submitted to: Ecological Economics.

Troy, A.R., K.J. Bagstad, S. Liu, and M.A. Wilson. In review. FrESCOES: Framework Earth Surface Characterization Ontology for Ecosystem Services. Submitted to: Frontiers in Ecology and the Environment.

Stromberg, J.C., K.J. Bagstad, and E. Makings. In press. Chapter 2: Floristic Diversity. In: Riparian Area Conservation and Ecology in a Semi-Arid Region: The San Pedro Example. J.C. Stromberg and B. Tellman, eds. University of Arizona Press: Tucson.

Bagstad, K.J., K. Stapleton, and J.R. D’Agostino. In press. Taxes, subsidies, and insurance as drivers of United States coastal development. Accepted for publication in: Ecological Economics.

Bagstad, K.J., S.J. Lite, and J.C. Stromberg. 2006. Vegetation and hydro-geomorphology of riparian patch types of a dryland river. *Western North American Naturalist* 66: 23-44.

Bagstad, K.J. 2006. Valuing ecosystem services in the Chicago region. *Chicago Wilderness Journal* 4 (2): 18-26.

Stromberg, J.C., K.J. Bagstad, E. Makings, S.J. Lite, and J. Leenhouts. 2005. Effect of decline in stream flow duration on channel vegetation of a semi-arid region river (San Pedro River, Arizona). *River Research & Application* 21 (8): 925-938.

Lite, S.J., K.J. Bagstad, and J.C. Stromberg. 2005. Riparian plant richness and abundance across gradients of water stress and flood disturbance, San Pedro River, Arizona, USA. *Journal of Arid Environments* 63 (4): 785-813.

Bagstad, K.J., J.C. Stromberg, and S.J. Lite. 2005. Response of herbaceous riparian plant functional groups to flooding of the San Pedro River, Arizona. *Wetlands* 25 (1): 210-223.

Roberts, B.R., H.F. Decker, K.J. Bagstad, and K.A. Peterson. 2001. Bio-solid residues as soilless media for growing wildflower sod. *HortTechnology* 11(2): 194-199.

Bagstad, K.J. and D.M. Johnson. 1999. Taxonomy of *Xylopiya barbata* (Annonaceae) and related species from the Amazon/Orinoco region. *Contributions of the University of Michigan Herbarium* 22:21-29.

---

---

## Presentations

Swedeen, P., D. Batker, I. de la Torre, J. Day, R. Costanza, R. Boumans, and K.J. Bagstad. "The value of hurricane protection functions and other ecosystem services in coastal Louisiana: A post-Katrina analysis." International Society for Ecological Economics Biennial Conference, Delhi, India, December 2006.

Bagstad, K.J. "Desertification: An ecological economic perspective." Peking University 1<sup>st</sup> Students International Environmental Forum, Beijing, China, June 2006.

Bagstad, K.J. "Economic approaches to conservation in the Chicago region." U.S. Society for Ecological Economics Biennial Conference, Tacoma, WA, July 2005.

Lite, S.J., K.J. Bagstad, and J.C. Stromberg. "Riparian plant richness across lateral and longitudinal gradients of water stress and flood disturbance, San Pedro River, Arizona, USA". Association of American Geographers Annual Meeting, Denver, CO, April 2005.

Bagstad, K.J., M.R. Wagstaff, V.M. Jurca, J. Bornstein, and M. Van Haaften. "Dunes, Wetlands, Prairies, People: Urban Habitat Restoration along Chicago's Lakefront". Biennial National Conference on Coastal and Estuarine Habitat Restoration, Seattle, WA, September 2004.

Katz, G.L., J.C. Stromberg, S.J. Lite, M.W. Denslow, and K.J. Bagstad. "Riparian ecosystem restoration, lower San Pedro River, Arizona, USA". Association of American Geographers Annual Meeting, Philadelphia, PA, March 2004.

Lite, S.J., J.C. Stromberg, and K.J. Bagstad. "Plant species diversity and richness patterns across water availability and flood intensity gradients along the San Pedro River, Arizona". Arizona Riparian Council Annual Meeting, Pinetop, AZ, April 2003.

Bagstad, K.J. and J.C. Stromberg. "Herbaceous plants as bioindicators of groundwater decline for the San Pedro River, Arizona". Ecological Society of America Annual Meeting, Tucson, AZ, August 2002.

Dixon, M., J.C. Stromberg, K.J. Bagstad, and S.J. Lite. "Projecting the influence of climate change on riparian vegetation along the Upper San Pedro River". Annual Conference on Research and Resource Management in the Southwestern Deserts, Tucson, AZ, May 2002.

Bagstad, K.J. and J.C. Stromberg. "Controls of plant species diversity in a desert riparian ecosystem". Ecological Society of America Annual Meeting, Madison, WI, August 2001.

Stromberg, J.C., K.J. Bagstad, and S.J. Lite. "Vegetation communities of the San Pedro: Relationships with stream flows and groundwater". Arizona Native Plant Society Annual Meeting, Sierra Vista, AZ, October 2000.

---

## **Professional Affiliations and Service**

Earth, Inc.: Founding Member, 2006-present

Rubenstein School of Environment and Natural Resources Climate Change Initiative, member, 2006-present

University of Vermont Environmental Council: Graduate student representative, 2005-present

Chicago Wilderness Social and Natural Sciences Research Agenda, Contributor, 2005-present

International Society for Ecological Economics: Member, 2006-present

Arizona State University Graduates in Earth and Life Sciences: Program committee, 2000-2002

ASU Plant Biology Graduate Student Association: President 2000-2001, Secretary 2001-2002

---