

CURRICULUM VITAE

**Jason Sircely**

**Department of Ecology, Evolution and Environmental Biology  
Columbia University**

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**EDUCATION & TRAINING**

**Columbia University** New York, New York

**Doctor of Philosophy**, Ecology and Evolutionary Biology – forthcoming 2011

Advisor: Dr. Shahid Naeem

**Environmental Policy Certificate** (School of International & Public Affairs) – May 2008

**Master of Arts**, Conservation Biology – February 2007

Advisor: Dr. Shahid Naeem

**Voluntary Service Overseas** Birmingham, England; Ottawa, Canada; Accra, Ghana

Voluntary Service Overseas Volunteer Training – March, July, and September 2002

**Earlham College** Richmond, Indiana

**Bachelor of Arts**, Biology – May 2000; College Honors, Biology Department Honors

Advisor: Dr. William Buskirk

**RESEARCH EXPERIENCE**

DOCTORAL FELLOW, *September 2007 – Present*

**Columbia University**, Department of Ecology, Evolution and Environmental Biology, New York, New York

Preliminary research currently examines biophysical regulation and economic valuation of ecosystem services in Sauri and Mbola Millennium Villages Project (MVP) sites in Kenya and Tanzania <[www.millenniumvillages.org](http://www.millenniumvillages.org)>. This work is funded by USAID through the TransLinks project <[www.translinks.org](http://www.translinks.org)>.

PULITZER INTERN (ENVIRONMENT & STATISTICS), *July – August 2007*

**Millennium Villages Project**, Earth Institute at Columbia University, and United Nations Development Programme, New York, New York / Mbarara, Uganda / Tabora, Tanzania (sponsored by the Pulitzer Foundation)

Conducted Gates Foundation-funded environmental research and training toward tracking the environmental aspects of comprehensive development interventions implemented by the Millennium Villages Project:

- *Ruhiira MVP, Uganda*: With Kenyan and Ugandan colleagues, conducted Land Degradation Surveillance Framework (LDSF) sampling, and a plant biodiversity and use survey.
- *Mbola MVP, Tanzania*: Trained Mbola MVP staff in the LDSF and plant biodiversity survey methodologies, data processing, and statistical analysis.

RESEARCH ASSISTANT, *September 2005 – May 2007*

**Columbia University**, Department of Ecology, Evolution and Environmental Biology, New York, New York

- *MA Thesis*: Examined the influence of forest understory plant and soil microbial (arbuscular mycorrhizal fungi and bacteria via T-RFLP) diversity and composition on ecosystem processes and exotic plant invasion, in conjunction with a long-term experiment simulating oak die-off following invasion by the sudden oak death pathogen, *Phytophthora ramorum* (Black Rock Forest, New York).
- Measured decomposition, nitrogen mineralization, and litterfall, and captured and analyzed hemispherical canopy photographs for the sudden oak death project.
- Studied the response of soil microbial communities (arbuscular mycorrhizal fungi and bacteria via T-RFLP) to long-term experimental nitrogen and carbon dioxide amendments in the BioCON (**B**iodiversity, **CO**<sub>2</sub>, and **N**itrogen) experiment (Cedar Creek Natural History Area, Minnesota).

FIRE EFFECTS MONITOR, *January 2001 – August 2002*

**The Nature Conservancy**, North Carolina Chapter, Durham, North Carolina

- Analyzed the effects of experimental surface and peat fires on a pocosin plant community, and the response of a pond pine woodland community to a prescribed burn. In collaboration with the US Forest Service Intermountain Fire Sciences Lab (USFS-IFSL) for TNC and US Air Force fire management planning.
- Designed, implemented, and supervised a photographic system to track long-term success of TNC fire management in protecting habitat of rare and endangered species in 20 savanna and pocosin preserves.
- Surveyed and raised grasshoppers to develop monitoring protocols for the threatened *Stethophyma celatum*.
- Supervised 5 technicians ground-truthing and processing remote-sensing data on pocosin wetland community types for conservation and landscape fire simulation with FARSITE.

STUDENT CURATOR OF ORNITHOLOGY, *September 1998 – May 2000*

**Joseph Moore Museum of Natural History**, Earlham College, Richmond, Indiana

- Managed the JMM ornithological skin, egg, nest, and skeleton collections.
- Trained employees in preparation and curatorial methods.

## EDUCATION EXPERIENCE

STATISTICAL CONSULTANT, *May – December 2006*

**Barnard College**, Biology Department, New York, New York

- Developed curriculum (lab guides and exercises) that incorporate statistical analysis and data management skills into the introductory undergraduate biology courses.

SCIENCE TEACHER AND HEAD OF DEPARTMENT, *September 2002 – June 2004*

**Awe Secondary Technical School**, Navrongo, Ghana (through London-based Voluntary Service Overseas)

- Planned and taught Senior Secondary Form 1-3 (high school) Integrated Science (biology, chemistry, physics, & agricultural science); team-taught Form 2 with a Ghana National Volunteer Program colleague.
- Performed Science Department administrative duties.

TEACHING ASSISTANT, *September 2000 – May 2001*

**Duke University**, Department of Biology, Durham, North Carolina

- Taught laboratories and seminars for two semesters of introductory undergraduate biology.
- Mentored and assessed students on a semester-long project simulating novel biological inquiry.

TEACHING ASSISTANT, *January 1998 – May 2000*

**Earlham College**, Biology Department, Richmond, Indiana

- Taught laboratory material and graded examinations and assignments for:  
Ornithology (1998, 1999, 2000)      Evolutionary biology (1999)      Ecological biology (1999)

## AWARDS & HONORS

- Faculty Fellowship, Columbia University; 4 years / \$94,000
- Plant Science Fellowship, Michigan State University; 2 years / \$64,000 - *Declined*
- Environmental Science and Policy Program Doctoral Recruiting Fellowship, Michigan State University; 2 years / \$60,000 - *Declined*
- Rackham Merit Fellowship nominee, University of Michigan; 3 years / \$72,000 - *Declined in advance*
- Graduation Honors:
  - Earlham College Honors, 2000
  - Earlham College Departmental Honors in Biology, 2000 (highest honors awarded at Earlham)
- Earlham College Alumni Scholarship; 4 years / \$48,000
- Hughesian Scholarship; 4 years / \$8,000

## PAPERS & PRESENTATIONS

- Sircely, Jason.** 2007. The influence of scale on the relationships among diversity, ecosystem function, and invasibility. Masters Thesis, Columbia University, New York.
- Sircely, Jason,** William Schuster, and Shahid Naeem. 2006. Evidence for niche-based community assembly in a deciduous forest understory plant community (*Poster*). Ecological Society of America 91<sup>st</sup> Annual Meeting, Memphis, Tennessee.
- Sircely, Jason,** William Schuster, and Shahid Naeem. 2006. The Future of Oak Forests: Possible Ecosystem Consequences of the Loss of a Foundation Taxon (*Oral*). Black Rock Forest Consortium Day, Black Rock Forest, Cornwall, New York.
- Sircely, Jason,** James Reardon and Margit Bucher. 2002. Response of pocosin community structure to experimental aboveground litter fire and belowground peat fire treatments. Internal Research Report, The Nature Conservancy, North Carolina Chapter, Durham, North Carolina.
- Sircely, Jason,** James Reardon and Margit Bucher. 2001. Effects of a dormant season fire on pond pine woodland vegetation structure and species composition in the Dare County Bombing Range, North Carolina. Internal Research Report, The Nature Conservancy, North Carolina Chapter, Durham, North Carolina.

## OTHER QUALIFICATIONS & EXPERIENCE

- **International experience:** Three cumulative years of work and study in sub-Saharan Africa:  
Kenya (1998, 2008)      Ghana (2002-04)      Uganda (2007)      Tanzania (2007, 2008)
- **The Sunuga Project** (Youth Harvest Foundation, Bolgatanga, Ghana): Co-founder of a peanut development project <[www.yhfg.org/script\\_en/projects/03.htm](http://www.yhfg.org/script_en/projects/03.htm)>.
- **Language skills:**  
*Conversational:* Spanish      *Written proficiency:* Latin      *Functional:* Swahili, Kasseem, French
- **Wildland Firefighting training and experience:**
  - Participated in:
    - 10 prescribed burns
    - 1 wildfire
  - Federal equivalency Nature Conservancy courses:
    - S-130/S-190 (Red Card; Basic wildland firefighter training)
    - S-211 (Water handling for wildland firefighting)
- **Proficient in:** R, Systat, Stata, ArcInfo, several design programs.

## MINOR CONTRIBUTIONS

- Sircely, Jason. 2005. Drilling for oil? Not in our refuge. Letter to the Editor, the New York Times, New York, NY.  
Available from: <[query.nytimes.com/gst/fullpage.html?res=9B07E6DD133CF935A25750C0A9639C8B63](http://query.nytimes.com/gst/fullpage.html?res=9B07E6DD133CF935A25750C0A9639C8B63)>.
- Sircely, Jason. 2007. Roles of Understory Biodiversity. Black Rock Forest News, Cornwall, NY.

## REFERENCES

### **Dr. Shahid Naeem, Columbia University**

Chair and Associate Professor, Department of Ecology, Evolution & Environmental Biology; 10<sup>th</sup> Floor Schermerhorn Extension, 1200 Amsterdam Avenue, New York, New York 10027; +1.212.854.4499; <[sn2121@columbia.edu](mailto:sn2121@columbia.edu)>

### **Dr. Eleanor Sterling, American Museum of Natural History**

Director, Center for Biodiversity and Conservation; Central Park West at 79th Street, New York, New York 10024-5192; +1.212.769.5266; <[sterling@amnh.org](mailto:sterling@amnh.org)>

### **Dr. William Buskirk, Earlham College**

Associate Professor, Department of Biology; 801 National Road West, Richmond, Indiana 47374; +1.765.983.1320; <[billb@earlham.edu](mailto:billb@earlham.edu)>