

Curriculum Vitae—Peter S. Kourtev

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Education

- Ph.D. in Ecology and Evolution, Rutgers, The State University of NJ, 2001.
 - Dissertation: *“Effects of exotic plant species on soil and litter microbial communities.”*
- B.S. in Biochemistry and Microbiology, Sofia University, Sofia, Bulgaria, 1994.
 - Undergraduate Thesis: *“Impact of Bulgarian synthetic soil conditioners based on acrylonitrile on microorganisms and some enzyme activities in soil”*

Professional Experience

- Postdoctoral Position, 10/2002 to 06/2006.
 - Dept. of Biological Sciences, Purdue University, West Lafayette, IN. *Ecological interactions between heavy metals and microbes that impact bioremediation.*
- Postdoctoral Position, 08/2001 to 10/2002.
 - Dept. of Microbiology and Biochemistry, Cook College, Rutgers, The State University of NJ. *Characterization of paper machine microbial communities using culturing and molecular techniques (Phospholipid Fatty Acids and DNA analysis).*

Academic Experience

- Assistant Professor, Central Michigan University, 08/2006 to present.
 - General Biology (100 level undergraduate).
 - Global Change Biology (100 level undergraduate)
 - Introduction to Microbiology (200 level undergraduate).
 - Soil Science (300 level undergraduate).
 - Capstone Seminar (400 level undergraduate)
 - Bacterial Diversity (500/600 level graduate and undergraduate).

Academic Honors and Awards

- Excellence Fellowship, 9/96 to 6/98 and 9/00 to 6/01.
 - Rutgers University, Department of Ecology, Evolution and Natural Resources.

Languages

- Fluent knowledge of English, Bulgarian and Spanish.
- Working knowledge of written Russian.

Professional Affiliations

- American Society for Microbiology–member since 2001.
- Ecological Society of America–member since 2008.

Professional Activities

- Reviewer for various journals - Ecology, Ecotoxicology and Environmental Safety, Biological Invasions. Microbial Ecology, Applied & Environmental Microbiology.
- Reviewer for NSF, Ecosystem Biology Program.

Student Research

- Undergraduate Students: 9.
- Honors Students: 2.

Publications

- Zlamal, J. and **Kourtev, P.S.** (2008) Impact of the invasive plant autumn olive (*Elaeagnus umbellata*) on soil microbial communities. *Biological Invasions*, In preparation.
- Weaver, M. and **Kourtev, P.S.** (2008) Characterization of the bacterial community in the pitchers of the northern pitcher plant (*Sarracenia purpurea*) using PCR-DGGE. *Microbial Ecology*, In preparation.
- **Kourtev, P.S.**, Konopka, A. and Nakatsu, C.H. (2008) Inhibition of nitrate reduction by Cr(VI) in anaerobic soil microcosms. *Applied and Environmental Microbiology*, In preparation.
- Hill, K.A., Shepson, P.B., Galbavy, E.S., Anastasio, C., **Kourtev, P.S.**, Konopka, A. and Stirm, B.H. (2007) Processing of atmospheric nitrogen by clouds above a forested environment. *Journal of Geophysical Research-Atmospheres*, **112**:D11301.
- **Kourtev, P.S.**, Konopka, A. and Nakatsu, C.H. (2006) Responses of the anaerobic bacterial community to the addition of organic C in chromium (VI)- and iron (III)-amended microcosms. *Applied and Environmental Microbiology*, **72**:628–637.
- Nakatsu, C.H., Carmosini, N., Baldwin, B., Beasley, F., **Kourtev, P.S.** and Konopka, A. (2005) Soil microbial community responses to additions of organic carbon substrates and heavy metals (Pb and Cr). *Applied and Environmental Microbiology*, **71**:7679-7689.
- **Kourtev, P.S.** and Ehrenfeld, J.G. and Häggblom, M. (2003) Experimental analysis of the effect of exotic and native plant species on the structure and function of soil microbial communities. *Soil Biology & Biochemistry*, **35**:895–905.

- **Kourtev, P.S.** and Ehrenfeld, J.G. and Häggblom, M. (2002) Exotic species alter microbial community structure and function in the soil. *Ecology*, **83**:3152–3166
- **Kourtev, P.S.** and Ehrenfeld, J.G. and Huang, W.Z. (2002) Enzyme activities during litter decomposition of two exotic and two native plant species in hardwood forests of New Jersey. *Soil Biology & Biochemistry*, **34**:1207–1218.
- Ehrenfeld, J., **Kourtev, P.**, and Huang, W. (2001) Changes in soil functions following invasions of exotic understory plants in deciduous forests. *Ecological Applications*, **11**:1287–1300.
- **Kourtev, P.**, Huang, W., and Ehrenfeld, J. (1999) Differences in earthworm densities and nitrogen dynamics in soils under exotic and native plant species. *Biological Invasions*, **1**:237–245.
- **Kourtev, P.**, Ehrenfeld, J., and Huang, W. (1998) Effects of exotic plant species on soil properties in hardwood forests of New Jersey. *Water, Air & Soil Pollution*, **105**:493–501.

Meeting Presentations

- **Kourtev, P.S.**, Konopka, A.E. and Nakatsu, C. (2005) Bacterial community responses to organic C addition in chromium (VI) and iron (III) amended anaerobic microcosms. *American Society for Microbiology Meeting*.
- **Kourtev, P.S.**, Carmosini, N., Beasley, F., Nakatsu, C. and Konopka, A.E. (2003) Heavy metals modulate microbial community responses to inputs of organic matter. *American Society for Microbiology Meeting*.
- **Kourtev, P.S.**, Whiteside, A., Kerkhof, L.J. and Häggblom, M.M. (2002) Characterization of the microbial community in slime samples from different areas of paper machines. *American Society for Microbiology Meeting*.
- **Kourtev, P.S.**, Huang, W.Z. and Ehrenfeld, J.G. (1999) Nitrogen cycling in soils beneath exotic and native plants in eastern deciduous forests. *Ecological Society of America Meeting Abstracts*.
- Huang, W.Z., **Kourtev, P.S.** and Ehrenfeld, J.G. (1998) Influence of barberry and wiregrass invasion on forest soil CO₂ evolution and N supply rates in microcosms. *Ecological Society of America Meeting Abstracts*.
- **Kourtev, P.S.**, Huang, W.Z. and Ehrenfeld, J.G. (1998) Spatial relationships between two invasive plant species and soil conditions in a hardwood forest. *Ecological Society of America Meeting Abstracts*.
- Ehrenfeld, J.G., **Kourtev, P.S.** and Huang, W.Z. (1998) Decomposition rates and microbial enzyme activities in litter of native and exotic species in northeastern hardwood forests. *Ecological Society of America Meeting Abstracts*.
- **Kourtev, P.S.**, Huang, W.Z. and Ehrenfeld, J.G. (1997) Variation in soil characteristics in relation to exotic species invasions in hardwood forests of New Jersey. *BIOGEOMON, Villanova University, Pennsylvania USA*.

Grant Activity

- 2008:
 - **P.S. Kourtev**. Do pitcher plants (*Sarracenia purpurea*) control the microbial community in their pitchers), Central Michigan University, PRIF, **\$24,868**, pending.
 - **P.S. Kourtev**. "Invasive woody species: does the impact of individual plants on soil change in space and time?", NSF, **\$241,388**, pending.
- 2007:
 - S.W. Gorsich, **P.S. Kourtev** and P. Slininger. "Novel microorganisms and their ability to ferment alternative substrates to bio-ethanol." USDA, **\$218,000**, not funded.
 - **P.S. Kourtev**. "Long-term effects of the invasive species autumn olive (*Elaeagnus umbellata*) on soil processes and microorganisms", Central Michigan University, PRIF: **\$14,233**.
 - **P.S. Kourtev** and B. Swanson. "Evaluation of the impact of the host genetic make-up on the diversity of gut microflora in deer", Central Michigan University, REF: **\$86,560**.
 - S.W. Gorsich, C. Neeley, **P.S. Kourtev** and C. Lee. "Novel microorganisms and their ability to ferment alternative substrates to bio-ethanol". Michigan Energy Office, **\$49,662**, not funded.
- 2006:
 - **P.S. Kourtev**. "Nitrate reduction by soil bacteria in the presence of the toxic metal Cr (VI)", Central Michigan University, FRCE: **\$3,991**.