

Katalin T. Malcolm, Ph.D.

Assistant Research Professor, Manager of Rutgers Pinelands Field Station

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EDUCATION

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Rutgers University, New Brunswick, NJ Jan. 2011-May 2016

Ph.D. Ecology and Evolution Program

Dissertation: Effects of mercury on phylloplane fungi

Rutgers University, Camden, NJ Jan. 2009- Dec. 2010

B.A. Biology

Camden County College, Blackwood, NJ Sept. 2006- Dec. 2008

A.S. Biology

RESEARCH

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Rutgers University, New Brunswick, NJ Jan. 2012-May 2016

Advisor: John Dighton

Dissertation: Effects of mercury on phylloplane fungi

– Investigated effect of mercury on fungal diversity, fungal growth and leaf decomposition

Academy of Aquatic Sciences, Camden, NJ Jan. - Dec. 2011

Research Assistant; Advisor: Alejandro Vagelli

– Analyzed diet of invasive snakehead fish to measure impact on food web

Rutgers Pinelands Field Station, New Lisbon, NJ Jan. 2010 – Dec. 2011

Research Assistant/Field Researcher; Advisor: John Dighton

– Investigated growth of fine roots and ectomycorrhizae under forest floor manipulations, assisted in the establishment of long term field site, performed various field sampling and data collection methods

University of Helsinki, Helsinki, Finland May - July 2010

Research Fellow; Advisors: John Dighton & Helja-Sisko Helmisaari

– Simulated tree harvesting practices to quantify effects on fine roots and ectomycorrhizae

TEACHING

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Rutgers University, Camden, NJ Fall 2017

Assistant Research Professor; Principles and Practices in Quantitative Biology

Rutgers University , Camden, NJ Adjunct Faculty; Understanding Environmental Problems	Spring 2017
Rowan University , Glassboro, NJ Adjunct Faculty; Diversity, Evolution & Adaptation lecture and laboratory	Spring 2015-present
Rutgers University , Camden, NJ Adjunct Faculty; Global Change (graduate course)	Fall 2016
Rutgers University , Camden, NJ Teaching Assistant; Ecology of Soil Organisms laboratory	Fall 2012-Spring 2016
Rutgers University , Camden, NJ Guest Lecturer; Ecology of Soil Organisms (3 lectures per semester)	Spring 2013 & 2014
Rowan University , Glassboro, NJ Adjunct Faculty; Global Ecology lecture and laboratory	Fall 2013
Rutgers University , Camden, NJ Review Leader; Facts of Life (non-science majors)	Fall 2012
Rutgers University , Camden, NJ Tutor CRLA Level 1 Certification; Biology and Chemistry	Fall 2011- Fall 2012
Rutgers University , Camden, NJ Proctor/Grader, Biology department	Fall 2011- Spring 2012

PUBLICATIONS

Malcolm, K., Dighton, J. and Barkay, T. (near submission). Leaves exposed to low levels of mercury exhibit change in fungal community fingerprint but not decomposition. *Soil Biology and Biochemistry*.

Malcolm, K., Dighton, J. and Barkay, T. (in review). Effect of mercury on the phylloplane fungal community of blueberry leaves has less effect than phenological time. *Mycology*.

Malcolm, K. and Dighton, J. (2017). Ecology of fungal phylloplane epiphytes. In: Dighton, J. and White, J. (Eds.) *The Fungal Community*. 4th ed. Boca Raton (FL): CRC Press

Dighton, J., Helmisaari, H.-S., Maghirang, M., Smith, S., **Malcolm, K.**, Johnson, W., Quast, L., Lallier, B., Gray, D., Setälä, H., Starr, M., Lúio, J., Kukkola, M. (2012) Impacts of forest post thinning residues on soil chemistry, fauna, and roots: Implications of residue removal in Finland. *Applied Soil Ecology*, 60: 16-22.

ORAL PRESENTATIONS (Presenter underlined, *represents undergraduate student)

Malcolm, K., Dighton, J., Barkay, T. The effects of mercury on fungal phylloplane communities. Mycological Society of America Annual Meeting, June 8-12, 2014. East Lansing, MI.

Malcolm, K. The effects of mercury on phylloplane fungi. Rutgers Ecology and Evolution Graduate Student Association Seminar Series. Nov. 22, 2013. New Brunswick, NJ.

Malcolm, K. The effects of mercury on fungal phylloplane communities. Pinelands Commission Research Series, Nov. 20, 2013. New Lisbon, NJ. ***Invited Speaker**

Malcolm, K. The effect of mercury on phylloplane fungi. Rutgers University Biology Department Seminar Series. April 18, 2013. Camden, NJ.

*Malcolm, K. & *Smith, S. Effects of post-harvest residues on fine roots and soil fauna. Rutgers University Biology Department Seminar Series. 2010. Camden, NJ.

POSTER PRESENTATIONS (Presenter underlined, *represents undergraduate student)

*Pham, N. and Malcolm, K. Effect of mercury on hyphal branch patterns. Rutgers Celebration of Undergraduate Research and Creative Activity. April 28, 2016. Camden, NJ.

Malcolm, K., Dighton, J. and Barkay, T. Effect of mercury on phylloplane fungi. Rutgers Microbiology Symposium, Jan. 30, 2015. New Brunswick, NJ.

Malcolm, K., Dighton, J. and Barkay, T. The effects of mercury on phylloplane fungi. 10th International Mycological Congress, Aug. 3-8, 2014. Bangkok, Thailand.

*Medellin, C., Malcolm, K. and Dighton, J. Effects of various mercury concentrations on hyphal growth rates. NSF-REU Seminar, Aug. 1, 2014. Camden, NJ.

Malcolm, K., Dighton, J., Barkay, T. The effects of mercury on phylloplane fungi. British Mycological Society Main Meeting: Fungi and Environmental Change, Sept. 10-13, 2013. Cardiff, Wales, UK.

*Rapacz, J. & Malcolm, K. Effects of various concentrations of mercury on selected phylloplane fungi. NSF-REU Seminar, Aug. 5, 2013. Camden, NJ.

Malcolm, K., Dighton, J., Barkay, T. The effects of mercury on phylloplane fungi and the role of fungi in the mercury cycle. International Conference on Mercury as a Global Pollutant (ICMGP), July 28- Aug. 2, 2013. Edinburgh, Scotland, UK.

PROFESSIONAL ORGANIZATIONS

Mycological Society of America
British Mycological Society

HONORS and AWARDS

TA Professional Development Fund Award (\$982), Rutgers University	2015
Ralph E. Good Award for Excellence in Pinelands Research, Rutgers University	2014
Magna cum laude, Rutgers University	2011
Athenaeum Honor Society, Rutgers University	2011
Undergraduate Research Fellowship, Rutgers University/University of Helsinki	2010
Dean's List, Rutgers University	2009-2011
NJ Stars II Scholarship	2009-2011
Dean's List, Camden County College	2006-2009
NJ Stars I Scholarship	2006-2009

PROFESSIONAL OUTREACH

Rutgers Pinelands Field Station , New Lisbon, NJ Undergraduate Mentor/ Research Supervisor – Mentor of ten undergraduate students	2012- 2016
Mycological Society of America Student Representative of <i>Ecology Special Expertise Committee</i>	2014-2015
Philadelphia Science Festival , Philadelphia, PA Volunteer event instructor	April 2015
Aresty Research Symposium , Rutgers University, New Brunswick, NJ Judge	April 2015
Soil Ecology Society of America , Rutgers University, Camden, NJ Conference Volunteer	June 2013
Academy of Aquatic Sciences , Camden, NJ Volunteer Reviewer – Reviewed early drafts of Vagelli, A. (2011) <i>The Banggai Cardinalfish: Natural History, Conservation, and Culture of Pterapogon kauderni</i> . Wiley-Blackwell, USA, 244 pp.	Jan.-July 2011

MEDIA COVERAGE

Moorhouse, E. (2014, Sept. 2) Rutgers University Pinelands Field Station Student Research. <https://www.youtube.com/watch?v=XxO-9aKpjas>

Moorhouse, E. (2012, Nov. 12) Pinelands National Reserve Serves as Resource for Rutgers-Camden Student Research. *Rutgers Today*.

Gidjunis, J. (2010, Apr. 26) Forestry team to collect data in Finland. *Courier-Post*.

McAneny, DJ. (2010, Apr. 12) Rutgers-Camden students' biofuel studies sending them abroad. *NJ.com*.

Moorhouse, E. (2010, Mar. 11) Forestry Research Will Lead Rutgers–Camden Students to Finland This Summer. *Rutgers Today*.