

Jessica Mackay, PhD

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SUMMARY

Highly motivated Science Editor specializing in biology, environmental science and agricultural science. Four years experience editing manuscripts for top-ranking peer-reviewed journals in both US and UK English.

EDUCATION

The University of Adelaide, Australia

PhD, Soil Ecology, 2017

Monash University, Australia

BA: Geography and Environmental Science, 2012

BSc: Plant Science, 2012

First Class Honours: Plant Science, 2013

N.B. The Honours program is a one year research project which is the Australian equivalent of a Masters program and allows entry to a Ph.D. program.

EXPERIENCE

Plant Editors, Freelance Science Editor, 2022–Current

- Provide substantive edits and feedback on manuscripts written by ESL scientists
- Work with journals to ensure that accepted papers meet all requirements

Cactus Communications, Freelance Science Editor, 2020–2022

- Edit manuscripts and theses written by ESL scientists
- Work with a range of academic topics

The University of New Hampshire, Postdoctoral Research Associate, 2018–2020

- Conduct research, analyze data and write manuscripts on soil microbial ecology
- Assist in grant writing
- Supervise students

CERTIFICATION

Poynter ACES Certificate in Editing, 2024

SELECTED AWARDS AND SCHOLARSHIPS

Crawford Fund Young Scholar, 2016

Crawford Fund

Travel Grant, 2015

Plant Nutrition Trust, Australian Society of Plant Scientists

Commonwealth Hill Scholarship, 2014

The University of Adelaide

Grains Research Scholarship, 2014

Grains Research and Development Corporation

PEER REVIEWED PUBLICATIONS

Mackay, J.E., Bernhardt, L.T., Smith, R.G., Ernakovich, J.G., 2023. "Tillage and pesticide seed treatments have distinct effects on soil microbial diversity and function."

Soil Biology and Biochemistry 176, 108860.

<https://doi.org/10.1016/j.soilbio.2022.108860>

Robison, A.L., Wollheim, W.M., Perryman, C.R., Cotter, A.R., **Mackay, J.E.**, Varner, R.K., Clarizia, P., Ernakovich, J.G., 2022. "Dominance of diffusive methane emissions from lowland headwater streams promotes oxidation and isotopic enrichment." *Frontiers in Environmental Science* 9. <https://doi.org/10.3389/fenvs.2021.791305>

Bernhardt, L.T., Smith, R.G., Grandy, A.S., **Mackay, J.E.**, Warren, N.D., Geyer, K.M., Ernakovich, J.G., 2022. "Soil microbial communities vary in composition and functional strategy across soil aggregate size class regardless of tillage." *Elementa: Science of the Anthropocene* 10, 00023. <https://doi.org/10.1525/elementa.2022.00023>

Mackay, J.E., Cavagnaro, T.R., Müller-Stöver, D.S., Macdonald, L.M., Grønlund, M., Jakobsen, I., 2017. "A key role for arbuscular mycorrhiza in plant acquisition of P from sewage sludge recycled to soil." *Soil Biology and Biochemistry* 115, 11-20

doi.org/10.1016/j.soilbio.2017.08.004

Mackay, J.E., Cavagnaro, T.R., Jakobsen, I., Macdonald, L.M., Grønlund, M., Thomsen, T.P., Müller-Stöver, D.S., 2017. "Evaluation of phosphorus in thermally converted

sewage sludge: P pools and availability to wheat.” *Plant and Soil*, 418 (1-2), 307-317. doi.org/10.1007/s11104-017-3298-6

Mackay, J.E., Macdonald, L.M., Smernik, R.J., Cavagnaro, T.R., 2017. “Organic amendments as phosphorus fertilisers: Chemical analyses, biological processes and plant P uptake.” *Soil Biology and Biochemistry* 107, 50–59. doi:10.1016/j.soilbio.2016.12.008

Mackay, J.E., Cunningham, S.C., Cavagnaro, T.R., 2016. “Riparian reforestation: are there changes in soil carbon and soil microbial communities?” *Science of the Total Environment* 566, 960–967. doi:10.1016/j.scitotenv.2016.05.045

CONFERENCE PRESENTATIONS

Mackay, J.E., Bernhardt, L., Ernakovich, J.G., Smith, R., 2019. “Pesticide seed treatments containing neonicotinoids have limited effect on soil microbial community structure under different tillage regimes.” Poster presentation at the American Geophysical Union Annual Meeting, San Francisco, USA.

Mackay, J.E., Ernakovich, J.G., Smith, R., 2019. “Linking microbial function and soil health with tillage and pesticide seed treatment.” Poster presentation at Soil Ecology Society Meeting, Toledo, USA

Mackay, J.E., Macdonald, L.M., Cavagnaro, T.R., 2017. “Does combined use of organic and mineral phosphorus fertilisers support mycorrhizal colonisation?” Invited oral presentation at the GRDC Adelaide Grains Research Update, Adelaide, Australia.

Mackay, J.E., Macdonald, L.M., Smernik, R.J., Müller Stöver, D.S., Jakobsen, I., Cavagnaro, T.R., 2016. “Plant P uptake from organic amendments: understanding soil chemical and biological processes for better management.” Oral presentation at Soil, a Balancing Act Down Under, Queenstown, New Zealand.

Mackay, J.E., Macdonald, L.M., Cavagnaro, T.R., 2015. “Evaluation of organic amendments, soil microbes and plant P uptake.” Oral presentation at the Wageningen Soil Conference, The Netherlands.

REFEREES

Associate Professor Jessica Ernakovich

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Professor Timothy Cavagnaro

Pro Vice-Chancellor (Research Training and Capabilities) and Dean of Graduate Research

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