

The LEAD Group President's Report FY2017

Compiled by Elizabeth O'Brien, LEAD Group President

Achievements of The LEAD Group this 2017 Financial Year:

- Influence via 95 LEAD Group Kits sold, thousands of web hits, information articles distributed and advice given, as well as four editions of *LEAD Action News* online at www.leadsafeworld.com and www.lead.org.au (see article links below) illustrated by well over one hundred Volcano Art Prize entries from www.volcanoartprize.com
- Our second biggest Volcano Art Prize to date, and international attendance at the Award Ceremony – held during International Lead Poisoning Prevention Week of Action (22nd – 28th October, 2017) and listed on the World Health Organisation's website at www.who.int/ipcs/lead_campaign/events/en/, as well as in the Australian federal Department of Health Calendar at www.health.gov.au/calendar
- Additional lead experts on The LEAD Group's Technical Advisory Board (see list below)
- journal and other publications of Committee member & Technical Advisory Board member Professor Mark Taylor and his Macquarie University students.

During FY 2017 The LEAD Group did not gain any Australian Federal government funding which provided for one full time waged staff member (Elizabeth O'Brien) and two part time waged staff members to run the Global Lead Advice and Support Service (GLASS) in FY2013.

***LEAD Action News* articles published during FY2017**

LEAD Action News Volume 17 Number 1, September 2016

1. [Lead-safety Art Awards in Lead Week of Action](#)
2. [Editorial](#)
3. [La Oroya sigue siendo la ciudad mas contaminada del mundo](#)
4. [La Oroya continues being the most polluted city of the world](#)
5. [Most of the world's population breathes dirty air](#)
6. [Tips & Facts: Lead is a significant component of fine particulate matter](#)
7. [EDF Lead Policy Tool - 40 years of sound US policy](#)
8. [The LEAD Group's objection to proposed Ingleburn Lead Acid Battery "Recycling" Facility](#)
9. [Remediator #7, July 2016: globalCARE](#)
10. [Drinking water lead contamination flows on](#)
11. [Lead: a modern day problem in plumbed rainwater](#)
12. [US turmeric and curry powders recalled for excess lead](#)
13. [Lead Safety and Home Remodelling](#)
14. [Australian Dust Removalists Association \(ADRA\) AGM notice](#)
15. [Quotable Quotes: Dust & Detox Quotes from The life-changing magic of tidying up](#)
16. [Lead Archiving Volunteer Opportunity](#)
17. [Lead poisoning of free-living birds in Esperance](#)
18. [Volcano Art Prize 2016 Entries - each ready for your Lead Safe World Poster!](#)

LEAD Action News Volume 17 Number 2, November 2016

1. [Volcano Art Prize \(VAP\) 2016 Awards held during International Lead Week of Action](#)
2. [Editorial](#)
3. [Volcano Art Prize \(VAP\) 2016 – Winners](#)
4. [2016 Volcano Art Prize \(VAP\) Awards Ceremony photo essay](#)
5. [Paint with Dangerous Lead Levels Widely Sold in All Developing Regions of the World](#)

6. [Pintura con Peligrosos Niveles de Plomo se Vende Ampliamente en Todas las Regiones en Desarrollo del Mundo](#)
7. [Peinture avec des Niveaux de Plomb Dangereux est Largement Vendue dans Toutes les Régions en Développement du Monde](#)
8. [Proud to Announce VINCO Full Stainless Steel Tapware](#)
9. [Letter to the Editor](#)
10. [A jam-maker's view of pectin](#)
11. [Stuttering and Lead Poisoning: stories from the last century](#)
12. [How does lead exposure affect our eyes?](#)
13. [Cómo afecta a nuestros ojos la exposición al plomo?](#)
14. [Info Pack – Lead fact sheet series of publications by NSW EPA](#)
15. [Info Pack - Managing lead hazards in childcare centres and schools](#)
16. [Info Pack - Renting and Lead - What residential landlords and agents should know](#)
17. [List of events for the international lead poisoning prevention week of action 23-29 October 2016](#)

LEAD Action News Volume 17 Number 3, May 2017

1. [Plumbing the depths of 'lead free' water](#)
2. [Editorial](#)
3. [DEKS easy to work with - lead free flashing](#)
4. [Does your Plumbing include Lead Soldered Yorkshire Fittings?](#)
5. [Why I tested my chicken broth for lead using a LEAD Group Water Kit](#)
6. [Quotable Quote](#)
7. [Lead in Literature - David Whyte poem](#)
8. [Perspective of a Veterinary Pathologist on Lead Shot](#)
9. [How does workplace safety and health align with sustainability?](#)
10. [Cómo la seguridad en lugar de trabajo se compagina con la sostenibilidad?](#)
11. [Elevated lead levels in Sydney back yards: here's what you can do](#)
12. [How does lead exposure affect our eyes? FRENCH: Comment l'exposition au plomb affecte-t-elle nos yeux?](#)
13. [LEAD Group Kits in Australia's Nurture Parenting Magazine and Social Media](#)
14. [Q&A: DIY lead poisoning of an 18 month old](#)
15. [Q&A: Cleaning up lead paint flakes after pressure washing](#)
16. [Q&A: Lead poisoned 22 years ago](#)
17. [Q&A: Lead pollution of fish/waterways from duck shooting](#)
18. [Battle over Lead Ammo at National Wildlife Refuges, USA](#)
19. [Contact Details of Australian Dust Removalists Association \(ADRA\) Member Companies, May 2017](#)
20. [Obituary - Gideon Schuman, the founder of the ceiling vacuuming industry](#)

LEAD Action News Volume 17 Number 4, June 2017

1. [Lead Safety in the United Kingdom](#)
2. [Blood Lead Levels in the UK](#)
3. [Editorial](#)
4. [Lead Use in the UK](#)
5. [Research Reviews](#)
6. [Global Alliance to Eliminate Lead Paint – press release by the Australian Paint Manufacturer's Federation \(APMF\) Inc.](#)
7. [Letter to the Editor: Fluoride in Drinking Water](#)
8. [Letter to the editor: Crusher dust contamination of sandpit sand in Broken Hill, Australia](#)

9. [Letter to the Editor: Broken Hill community - data and advice needs](#)
10. [People Who Shoot Risk Unhealthy Levels Of Lead Exposure](#)
11. [PCM Enviro - Managing The Clean-Up Of Shooting Ranges In Australia](#)
12. [Blood Lead Challenge \(Greek\)](#)
13. [Lead Affects The Brain; The Legal Trade Affects The Pocket](#)
14. [Get your entries in before 24th July, 2017 for Volcano Art Prize](#)

The LEAD Group's *Technical Advisory Board*

Prof Brian Gulson

isotopic fingerprinting

Dr Garth Alperstein

community paediatrics

Assoc Prof Peter Newman

science and technology policy, urban planning

Dr Ian Irvine

environmental contamination

Dr Chloe Mason

public health, environmental protection, public interest

Dr Val Brown

environment, consumers

Dr Jill Maddison

veterinary research

Dr. Ross Perry

holistic vet & bird specialist

Graeme Waller

pathology, environmental assessment

Fred Salome

industrial chemist, paint

Prof Graham Vimpani

child and family health

Dr Karl Kruszelnicki

medical and scientific

commentator

Dr John Wlodarczyk

statistician

Prof Geoffrey Duggin

clinical toxicologist

Jack Haley

automotive engineering, environmental impacts of vehicles

Michelle Calvert

local government

Michael Mobbs

environmental law

Elizabeth O'Brien

community advocacy, international campaigning

Theresa Gordon

point source community advocacy, international campaigning

Dr Kate Hughes

political scientist, toxics campaigner

Dr Marc Grunseit

professional and hobby (leadlighting) safety

Robin Mosman

conflict resolution

Prof Michael Mira

public health, general practice

Dr Ben Balzer

general practice

Rosemary Ayoub

early childhood education

Mike van Alphen

public health and environmental investigation

Dr. Mariann Lloyd-Smith

international toxics campaigning

Carol Bodle

lead assessment and occupational hygiene

Jamie Wood

local council environmental health.

Dr. Perry Gottesfeld

public health and the environment.

Isla MacGregor

Heavy metals contaminated sites.

Prof Mark P Taylor

environmental metal exposures, sources and pathways

Dr. Fatma Zahrani

pediatrics, research on lead levels

Prof Clement Adebamowo

lead in the domestic environment

Dr. Godofredo Arauzo

Doe Run lead smelter, community of La Oroya

Dr. Gavin Mudd

Environmental impacts of mining

Professor Damian Gore

contaminated site assessment and remediation

Alex Rosenwax

Birds and Exotics Veterinarian

Professor Richard Banati

Heavy Metal Monitoring & Biomonitoring, Human Neuropathology

Hesaan Sheridan

Heritage Testing

Dr Caroline M Taylor

Epidemiology, prenatal exposures, child health

Dr. Mark Laidlaw

Environmental Science, Geoscience and Epidemiology

Dr Morri Markowitz

Clinical care of pediatric and obstetric plumbism

Dr Conrad Krebs

Lead poisoning health impacts

Professor Mark Taylor – Publications & Students

According to <http://web.science.mq.edu.au/directory/listing/person.htm?id=mataylor> “Mark Taylor is a Professor of Environmental Science at Macquarie University. His research program investigates environmental pollution and risks to human health from aerosols, dusts, sediments, soil and water. He works in a range of locations across Australia, including Broken Hill, Darwin, Mount Isa, Port Pirie and Townsville.”

Publications and Presentations extracted from Mark Taylor’s Macquarie University webpage, <http://web.science.mq.edu.au/directory/listing/person.htm?id=mataylor>

Recent research stories and videos:

[Eliminating Toxic Exposures in Australian Communities](#)

[New recommendations for Australian blood lead levels](#)

[Australian towns where the tap water's toxic - ABC 730](#)

[Lead pollution and air quality in Australian major cities - ABC News](#)

Vegesafe soil testing program

For people interested in our community orientated VegeSafe soil metal analysis program please click [here](#).

ONLINE articles

[Click here for *The Conversation* articles by myself and colleagues on environmental pollution and human health](#)

RECENT JOURNAL PUBLICATIONS

Recent Journal Publications

2017

- Dong, C. and **Taylor, M.P.** 2017. Applying geochemical signatures of atmospheric dust to distinguish current mine emissions from legacy sources. *Atmospheric Environment*, 161, 82–89.
- Harvey, P.J., Rouillon, M., Dong, C., Ettler, V., Handley, H.K., **Taylor, M.P.**, Tyson, E., Tennant, P., Telfer, V., Trinh, R. 2017. Geochemical sources, forms and phases of soil contamination in an industrial city. *Science of the Total Environment*, 584–585, 505–514.
- Harvey, P.J., **Taylor, M.P.**, Handley, H.K., Foster, S., Gillings, M.R., Asher, A.J. 2017. Chemical, biological, and DNA markers for tracing slaughterhouse effluent. *Environmental Research*, 156, 534–541.
- Isley, C.F., Nelson, P.F., **Taylor, M.P.**, Mani, F.S., Maata, M., A. Atanacio, A., Stelcer, E., Cohen, D.D. 2017. PM_{2.5} and aerosol black carbon in Suva, Fiji. *Atmospheric Environment*, 150, 55–66.
- Isley, C., Nelson, P., **Taylor, M.P.**, Mazaheri, M., Morawska, L. (in press 2017). Airborne ultrafine particles in a Pacific Island Country: characteristics, sources and implication on human exposure. *Environmental Pollution*.

- Isley, C., Nelson, P., **Taylor, M.P.**, Stelcer, E., Antanacio, A., Cohen, D., Mani, F., Maata, M. (in press 2017). Reducing mortality risk by targeting specific air pollution sources: Suva, Fiji. *Science of the Total Environment*.
- Kristensen, L.J., **Taylor, M.P.**, Flegal, A.R. 2017. **Invited Review**. An odyssey of environmental pollution: the rise, fall and remobilisation of industrial lead in Australia. *Applied Geochemistry*, 83, 3-13.
- Laidlaw, M.A.S., Mohammad, S.M., Gulson, B.L., **Taylor, M.P.**, Kristensen, L.J., Birch, G. 2017. Estimates of potential childhood lead exposure from contaminated soil using the US EPA IEUBK Model in Sydney, Australia. *Environmental Research*, 156, 781–790.
- Rouillon, M., Harvey, P.J., Kristensen, L.J., George, S.G., **Taylor, M.P.** 2017. **Invited paper**. VegeSafe: a community science program measuring soil-metal contamination, evaluating risk and providing advice for safe gardening. *Environmental Pollution*, 222, 557–566.
- Rouillon, M., **Taylor, M.P.**, Dong, C. 2017. Reducing risk and increasing confidence of decision making at a lower cost: *In-situ* pXRF assessment of metal-contaminated sites. *Environmental Pollution*. <http://dx.doi.org/10.1016/j.envpol.2017.06.020>.
- Wu, L., **Taylor, M.P.**, Handley, H.K. 2017. Remobilisation of industrial lead depositions in ash during Australian wildfires. *Science of the Total Environment*, 599–600, 1233–1240.

2016

- Ericson, B., Landrigan, P., **Taylor, M.P.**, Frostad, J., Caravanos, J., Keith, J., Fuller, R. 2016. The Global Burden of Lead Toxicity Attributable to Informal Used Lead-Acid Battery (ULAB) Sites. *Annals of Global Health*, 82(5), 686–699.
- Harvey, P.J., Handley, H., **Taylor M.P.** 2016. Widespread copper and lead contamination of household drinking water, New South Wales, Australia. *Environmental Research*, 151, 275–285.
- Harvey, P.J., Taylor, M.P., Grant-Vest, S., Kristensen, L.J., Rouillon, M., Wu, L., Handley, H.K. 2016. Evaluation and Assessment of the efficacy of an abatement strategy in a former lead smelter community, Boolaroo, Australia. *Environmental Geochemistry and Health*, 38(4), 941–954.
- Isley, C.F., Nelson, P.F., **Taylor, M.P.** 2016. Managing air quality in Suva, Fiji. *European Journal of Sustainable Development*, 5(4), 242–254.
- Kristensen, L.J., **Taylor, M.P.**, Evans, A.J. 2016. Reply to Gulson’s comments on: Tracing changes in atmospheric sources of lead contamination using lead isotopic compositions in Australian red wine. *Chemosphere*, 165, 579–584.
- Kristensen, L.J., Taylor, M.P. 2016. Unravelling a ‘miner’s myth’ that environmental contamination in mining towns is naturally occurring. *Environmental Geochemistry and Health*, 38(4), 1015–1027.
- Rouillon, M., Taylor, M.P. 2016. Can field portable X-ray fluorescence (pXRF) produce high quality data for application in environmental contamination research? *Environmental Pollution*, 214, 255–264.
- Taylor, M.P., Forbes, M., Opeskin, B., Parr, N., Lanphear, B.P. 2016. The relationship between atmospheric lead emissions and aggressive crime: an ecological study. *Environmental Health*, 15:23, DOI: 10.1186/s12940-016-0122-3.
- Wu, L., Taylor, M.P., Handley, H., Gulson, B.L. 2016. Insights into past atmospheric lead emissions using lead concentrations and isotope compositions in historic lichens and fungi (1852-2008) from central and southern Victoria, Australia. *Atmospheric Environment*, 139, 46–55.
- Wu, L., Taylor, M.P., Handley, H., Wu, M. 2016. Reconstruction of Australian historic atmospheric depositions using lead isotopic compositions of archival lichen and fungi. *Environmental Pollution*, 208, 678–687.

And from the CV of Professor Mark Patrick Taylor:

Top five cited publications

1. Thomson, J.R., **Taylor, M.P.**, Fryirs, K., and Brierley, G.J. 2001. A geomorphological framework for river characterisation and habitat assessment. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 11(5), 373-389. **166 citations**.

2. Csavina, J., Field, J., **Taylor, M.P.**, Gao, S., Landázuri, A., Betterton, E.A., Sáez, A.E. 2012. A Review on the Importance of Metals and Metalloids in Atmospheric Dust and Aerosol from Mining Operations. *Science of the Total Environment*, 433, 58-73. **159 citations.**
3. Findlay, S. and **Taylor, M.P.** 2006. Why rehabilitate urban river systems? *Area*, 38(3), 312-325. **114 citations.**
4. Hudson-Edwards, K.A., Macklin, M.G. and **Taylor, M.P.** 1999. 2000 years of sediment-borne heavy metal storage in the Yorkshire Ouse basin, NE England, U.K. *Hydrological Processes*, 13, 1087-1102. **93 citations.**
5. **Taylor, M.P.**, Hudson-Edwards, K.A., Mackay, A.K., Holz, E. 2010. Soil Cd, Cu, Pb and Zn contaminants around Mount Isa city, Queensland, Australia: potential sources and risks to human health. *Applied Geochemistry*, 25(6), 841-855. **87 citations.**

OTHER RESEARCH-RELATED OUTPUT – conference papers, invited newspapers opinion pieces, magazines, electronic media, etc.

Harvey, P.J., **Taylor, M.P.** 2017. Reply to criticism of soil pollution research. Newcastle Herald, 6 April 2017. Available at: <http://www.theherald.com.au/story/4580152/reply-to-criticism-of-soil-pollutionresearch/> (accessed 11.05.2017).

Taylor, M.P., Harvey, P.J., Dong, C. 2017. Mount Isa contamination ‘within guidelines’ but residents told to clean their homes. *The Conversation*. Available at: <https://theconversation.com/mount-isacontamination-within-guidelines-but-residents-told-to-clean-their-homes-72862> (accessed 21.02.2017).

Rouillon, M., Kristensen, L., **Taylor, M.P.**, Harvey, P.J., George, S. 2017. Elevated lead levels in Sydney back yards: here’s what you can do, 17 January 2017. *The Conversation*. Available at: <http://theconversation.com/elevated-lead-levels-in-sydney-back-yards-heres-what-you-can-do-68499> (accessed 20.02.2017).

RESEARCH THESIS PROJECTS AND SUPERVISION

Doctor of Philosophy (PhD) and Masters by Research - Current students

- Chenyin, D. (2014 enrolled). Environmental metal exposures and human health outcomes. PhD Candidate, Environmental Science, PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Primary supervisor].
- Doyi, I. (2016 enrolled). Environmental dust contamination in the home environment. PhD Candidate, Environmental Science, PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Primary supervisor].
- Ericson, B. (2016 enrolled). Lead contamination, exposures and remediation in lower to middle income countries. PhD Candidate, Environmental Science, PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Primary supervisor].
- Harvey, P.J. (submitted Feb 2017 – outcome pending). Investigating contamination of potable water supplies in NE Tasmania using copper, lead and zinc isotopic analyses. PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University. [Co-supervisor].
- Isley, C.F. (2013 enrolled). Investigation of air pollutant composition and levels in Suva Fiji; through use of inventory, monitoring and modelling; formulation of pollutant and emission reduction strategies. PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Co-supervisor].
- Russell, S. (2016 enrolled). Metals and microbes in indigenous foods, Northern Territory. PhD Candidate, Environmental Science, PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Primary supervisor].
- Rouillon, M. (2013 enrolled). Investigation of the spatial environmental and human health risks associated with urban soil metal contamination. PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Primary supervisor].
- Tippler, C. (2014 enrolled). Urban impacts on aquatic quality and diversity. PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Co-supervisor supervisor].
- Zhou, X. (2014 enrolled). Measurement and environmental sources of contamination using honey bees and their products. PhD Candidate, Dept of Environmental Sciences, Faculty of Science and Engineering, Macquarie University [Primary supervisor].