

BEN TURNER FULL PUBLICATION LIST (OCTOBER 2007)

Doctoral Thesis

- **Turner, B.L.**, 2000. *Biological Controls on the Solubilisation of Phosphorus in Grassland Soils*. Ph.D. thesis, Department of Geography, Royal Holloway, University of London, UK. 345 p.

Edited books

- **Turner, B.L.**, Frossard, E., Baldwin, D.S., 2005. *Organic Phosphorus in the Environment*. CAB International, Wallingford, UK. 432 p.
- **Turner, B.L.**, Richardson, A.E., Mullaney, E.J., 2007. *Inositol Phosphates: Linking Agriculture and the Environment*. CAB International, Wallingford, UK. 304 p.

Refereed Articles in Primary Journals

- **Turner, B.L.**, Haygarth, P.M., 1999. Phosphorus leaching under cut grassland. *Water Science & Technology* **39** (12), 63-67.
- Espinosa, M., **Turner, B.L.**, Haygarth, P.M., 1999. Pre-concentration and separation of trace phosphorus compounds in soil leachate. *Journal of Environmental Quality* **28** (5), 1497-1504.
- **Turner, B.L.**, Haygarth, P.M., 2000. Phosphorus forms and concentrations in leachate from four grassland soil types. *Soil Science Society of America Journal* **64** (3), 1090-1097.
- **Turner, B.L.**, Haygarth, P.M., 2001. Phosphorus solubilization in rewetted soils. *Nature* **411** (6835), 258.
- **Turner, B.L.**, Bristow, A.W., Haygarth, P.M., 2001. Rapid estimation of soil microbial biomass in grassland soils by ultra-violet absorbance. *Soil Biology & Biochemistry* **33** (7-8), 913-919.
- **Turner, B.L.**, Baxter, R., Ellwood, N.T.W., Whitton, B.A., 2001. Characterization of the phosphatase activity of mosses in relation to their environment. *Plant, Cell & Environment* **24** (11), 1165-1176.
- **Turner, B.L.**, Papházy, M., Haygarth, P.M., McKelvie, I.D., 2002. Inositol phosphates in the environment. *Philosophical Transactions of the Royal Society, London, Series B* **357** (1420), 449-469.
- **Turner, B.L.**, Hopkins, D.W., Haygarth, P.M., Ostle, N.J., 2002. β -glucosidase activity in pasture soils. *Applied Soil Ecology* **20** (2), 157-162.
- **Turner, B.L.**, McKelvie, I.D., 2002. A novel technique for the pre-concentration and extraction of inositol hexakisphosphate from soil extracts with determination by phosphorus-31 nuclear magnetic resonance. *Journal of Environmental Quality* **31** (2), 466-470.
- **Turner, B.L.**, Baxter, R., Whitton, B.A., 2002. Seasonal phosphatase activity in three characteristic soils of the English uplands polluted by long-term atmospheric nitrogen deposition. *Environmental Pollution* **120** (2), 313-317.
- **Turner, B.L.**, McKelvie, I.D., Haygarth, P.M., 2002. Characterisation of water-extractable soil organic phosphorus by phosphatase hydrolysis. *Soil Biology & Biochemistry* **34** (1), 27-35.
- **Turner, B.L.**, Haygarth, P.M., 2003. Changes in bicarbonate-extractable organic and inorganic phosphorus by drying pasture soils. *Soil Science Society of America Journal* **67** (1), 344-350.
- **Turner, B.L.**, Mahieu, N., Condron, L.M., 2003. Phosphorus-31 nuclear magnetic resonance spectral assignments of phosphorus compounds in soil NaOH-EDTA extracts. *Soil Science Society of America Journal* **67** (2), 497-510.

- **Turner, B.L.**, Driessen, J.P., Haygarth, P.M., McKelvie, I.D., 2003. Potential contribution of lysed bacterial cells to phosphorus solubilisation in two rewetted Australian pasture soils. *Soil Biology & Biochemistry* **35** (1), 187-189.
- Sjögersten, S., **Turner, B.L.**, Mahieu, N., Condrón, L.M., Wookey, P.A., 2003. Soil organic matter biochemistry and potential susceptibility to climatic change across the forest–tundra ecotone in the Fennoscandian mountains. *Global Change Biology* **9** (5), 759-772.
- **Turner, B.L.**, Cade-Menun, B.J., Westermann, D.T., 2003. Organic phosphorus composition and potential bioavailability in semi-arid arable soils of the western United States. *Soil Science Society of America Journal* **67** (4), 1168-1179.
- **Turner, B.L.**, Mahieu, N., Condrón, L.M., 2003. The phosphorus composition of temperate pasture soils determined by NaOH–EDTA extraction and solution ³¹P NMR spectroscopy. *Organic Geochemistry* **34** (8), 1199-1210.
- **Turner, B.L.**, Mahieu, N., Condrón, L.M. 2003. Quantification of *myo*-inositol hexakisphosphate in alkaline soil extracts by solution ³¹P NMR spectroscopy and spectral deconvolution. *Soil Science* **168** (7), 469-478.
- **Turner, B.L.**, Baxter, R., Whitton, B.A., 2003. Nitrogen and phosphorus fractions in soil solutions and drainage streams in Upper Teesdale, northern England: Implications of organic compounds for biological nutrient limitation. *Science of the Total Environment* **314-316** (C), 153-170.
- **Turner, B.L.**, Baxter, R., Ellwood, N.T.W., Whitton, B.A., 2003. Seasonal phosphatase activities of mosses from Upper Teesdale, northern England. *Journal of Bryology* **25** (3), 189-200.
- **Turner, B.L.**, Chudek, J.A., Whitton, B.A., Baxter, R., 2003. Phosphorus composition of upland soils polluted by long-term atmospheric nitrogen deposition. *Biogeochemistry* **65** (2), 259-274.
- **Turner, B.L.**, 2004. Optimizing phosphorus characterization in animal manures by solution phosphorus-31 nuclear magnetic resonance spectroscopy. *Journal of Environmental Quality* **33** (2), 757-766.
- **Turner, B.L.**, Baxter, R., Mahieu, N., Sjögersten, S., Whitton, B.A., 2004. Phosphorus compounds in subarctic Fennoscandian soils at the mountain birch (*Betula pubescens*)–tundra ecotone. *Soil Biology & Biochemistry* **36** (5), 815-823.
- Chen, C.R., Condrón, L.M., **Turner, B.L.**, Mahieu, N., Davis, M.R., Xu, Z.H., Sherlock, R.R., 2004. Mineralisation of soil orthophosphate monoesters under pine seedlings and ryegrass. *Australian Journal of Soil Research* **42** (2), 189-196.
- Haygarth, P., **Turner, B.L.**, Fraser, A., Jarvis, S., Harrod, T., Nash, D., Halliwell, D., Page, T., Bevan, K., 2004. Temporal variability in phosphorus transfers: classifying concentration–discharge event dynamics. *Hydrology and Earth System Sciences* **8** (1), 88-97.
- **Turner, B.L.**, Richardson, A.E., 2004. Identification of *scyllo*-inositol phosphates in soils by solution phosphorus-31 nuclear magnetic resonance spectroscopy. *Soil Science Society of America Journal* **68** (3), 802-808.
- **Turner, B.L.**, Kay, M.A., Westermann, D.T., 2004. Colloidal phosphorus in surface runoff and water extracts from semiarid soils of the western United States. *Journal of Environmental Quality* **33** (4), 1464-1472.
- **Turner, B.L.**, Kay, M.A., Westermann, D.T., 2004. Phosphorus in surface runoff from semiarid arable soils of the western United States. *Journal of Environmental Quality* **33** (5), 1814-1821.
- **Turner, B.L.**, Leytem, A.B., 2004. Phosphorus compounds in sequential extracts of animal manures: chemical speciation and a novel fractionation procedure. *Environmental Science & Technology* **38** (22), 6101-6108.

- Maguire, R.M., Sims, J.T., Saylor, W.W., **Turner, B.L.**, Angel, R., Applegate, T.J., 2004. Influence of phytase addition to poultry diets on phosphorus forms and solubility in litters and amended soils. *Journal of Environmental Quality* **33** (6), 2306-2316.
- Leytem, A.B., **Turner, B.L.**, Thacker, P.A., 2004. Phosphorus composition of manure from swine fed low-phytate grains: Evidence for hydrolysis in the animal. *Journal of Environmental Quality* **33** (6), 2380-2383.
- Vadas, P.A., Kleinman, P.J.A., Sharpley, A.N., **Turner, B.L.**, 2005. Relating soil phosphorus to dissolved phosphorus in runoff: a single extraction coefficient for water quality modeling. *Journal of Environmental Quality* **34** (2), 372-380.
- **Turner, B.L.**, 2005. Storage-induced changes in phosphorus solubility of air-dried soils. *Soil Science Society of America Journal* **69** (3), 630-633.
- Worsfold, P.J., Gimbert, L.J., Mankasingh, U., Omaka, N.O., Hanrahan, G., Gardolinski, P.C.F.C., Haygarth, P.M., **Turner, B.L.**, Kieth-Roach, M.J., McKelvie, I.D., 2005. Sampling, sample treatment and quality assurance issues for the determination of phosphorus species in natural waters and soils. *Talanta* **66** (2), 273-293.
- **Turner, B.L.**, Cade-Menun, B.J., Condrón, L.M., Newman, S., 2005. Extraction of soil organic phosphorus. *Talanta* **66** (2), 294-306.
- Haygarth, P.M., Condrón, L.M., Heathwaite, A.L., **Turner, B.L.**, Harris, G.P., 2005. The phosphorus transfer continuum: Linking source to impact with an interdisciplinary and multi-scaled approach. *Science of the Total Environment* **344** (1-3), 5-14.
- **Turner, B.L.**, Haygarth, P.M., 2005. Phosphatase activity in pasture soils: Potential regulation of labile organic phosphorus turnover by phosphodiesterase activity. *Science of the Total Environment* **344** (1-3), 27-36.
- Leytem, A.B., **Turner, B.L.**, Raboy, V., Peterson, K.L., 2005. Linking manure properties to soil phosphorus solubility in calcareous soils: Importance of the manure carbon to phosphorus ratio. *Soil Science Society of America Journal* **69** (5), 1516-1524.
- McGrath, J.M., Sims, J.T., Maguire, R.O., Saylor, W.W., Angel, C.R., **Turner, B.L.**, 2005. Broiler diet modification and litter storage: Impacts on phosphorus in litters, soils, and runoff. *Journal of Environmental Quality* **34**, 1896-1909.
- **Turner, B.L.**, Newman, S., 2005. Phosphorus cycling in wetland soils: the importance of phosphate diesters. *Journal of Environmental Quality* **34** (5), 1921-1929.
- **Turner, B.L.**, Mahieu, N., Condrón, L.M., Chen, C.R., 2005. Quantification and bioavailability of scyllo-inositol hexakisphosphate in pasture soils. *Soil Biology & Biochemistry* **37** (11), 2155-2258.
- George, T.S., **Turner, B.L.**, Gregory, P.J., Cade-Menun, B.J., Richardson, A.E., 2006. Depletion of organic phosphorus from Oxisols in relation to phosphatase activities in the rhizosphere. *European Journal of Soil Science* **57** (1), 47-57.
- **Turner, B.L.**, Newman, S., Newman, J., 2006. Organic phosphorus sequestration in subtropical treatment wetlands. *Environmental Science & Technology* **40** (3), 727-733.
- **Turner, B.L.**, Newman, S., Reddy, K.R., 2006. Overestimation of organic phosphorus in wetland soils by alkaline extraction and molybdate colorimetry. *Environmental Science & Technology* **40** (10), 2249-2254.
- **Turner, B.L.**, 2006. Organic phosphorus in Madagascan rice soils. *Geoderma* **136** (1-2), 279-288.
- Engelbrecht, B.M.J., Comita, L.S., Condit, R., Kursar, T.A., Tyree, M.T., **Turner, B.L.**, Hubbell, S.P., 2007. Drought sensitivity shapes species distribution patterns in tropical forests. *Nature* **447** (7140), 80-82.

- Allison, V.J., Condon, L.M., Peltzer, D.A., Richardson, S.J., **Turner, B.L.**, 2007. Changes in enzyme activities and soil microbial community composition along carbon and nutrient gradients at the Franz Josef chronosequence, New Zealand. *Soil Biology & Biochemistry* **39** (7), 1770-1781.
- Leytem, A.B., Thacker, P.A., **Turner, B.L.**, 2007. Phosphorus characterization in feces from broiler chicks fed low-phytate barley diets. *Journal of the Science of Food and Agriculture* **87** (8), 1495-1501.
- **Turner, B.L.**, Newman, S., Cheesman, A.W., Reddy, K.R., 2007. Sample pretreatment and phosphorus speciation in wetland soils. *Soil Science Society of America Journal* **71** (5), 1538-1546.
- **Turner, B.L.**, Condon, L.M., Richardson, S.J., Peltzer, D.A., Allison, V.J., 2007. Soil organic phosphorus transformations during pedogenesis. *Ecosystems*, in press.
- Cernusak, L.A., Aranda, J., **Turner, B.L.**, Marshall, J.D., Winter, K., 2007. Transpiration efficiency of a tropical pioneer tree (*Ficus insipida*) in relation to soil fertility. *Journal of Experimental Botany*, in press.
- **Turner, B.L.**, 2008. Soil organic phosphorus in tropical forests: An assessment of the NaOH-EDTA extraction and solution ³¹P NMR spectroscopy procedure. *European Journal of Soil Science*, in press.

Contributions to Edited Volumes and Reports

- **Turner, B.L.**, Haygarth, P.M., 1999. Phosphorus leaching below grassland soils. In *Diffuse Pollution and Agriculture II*, edited by T. Petchey, B. D'Arcy and A. Frost. Scottish Agricultural College, Fort William, UK. pp. 191-195.
- Leinweber, P., **Turner, B.L.**, Meissner, R., 2002. The role of phosphorus in agriculture and environmental pollution. In *Agriculture, Hydrology and Water Quality*, edited by P.M. Haygarth and S.C. Jarvis. CAB International, Wallingford, UK. pp. 29-55.
- **Turner, B.L.**, Haygarth, P.M., 2002. Influence of soil processes on solubilisation of P forms: A review of experimental data. In *Phosphorus Losses from Agricultural Soils: Processes at the Field Scale*, edited by W. Chardon and O. Schoumans. Alterra, Wageningen, the Netherlands. pp. 66-72.
- Gil-Sotres, F., Trasar-Cepeda, C., **Turner, B.L.**, Oberson, A., 2002. Review of concepts and process description on biological mechanisms. In *Phosphorus Losses from Agricultural Soils: Processes at the Field Scale*, edited by W. Chardon and O. Schoumans. Alterra, Wageningen, the Netherlands. pp. 36-43.
- **Turner, B.L.**, Raboy, V., 2003. The phosphorus cycle. In *McGraw-Hill Yearbook of Science & Technology*. McGraw-Hill Inc., New York, USA. pp. 329-334.
- Whitton, B.A., Al-Sherih, A.M., Ellwood, N.T.W., **Turner, B.L.**, 2005. Ecological aspects of phosphatase activity in cyanobacteria, eukaryotic algae and bryophytes. In *Organic Phosphorus in the Environment*, edited by B.L. Turner, E. Frossard, and D.S. Baldwin. CAB International, Wallingford, UK. pp. 205-241.
- **Turner, B.L.**, Frossard, E., Baldwin, D.S., 2005. Preface. In *Organic Phosphorus in the Environment*, edited by B.L. Turner, E. Frossard, and D.S. Baldwin. CAB International, Wallingford, UK. pp. ix-x.
- **Turner, B.L.**, 2005. Organic phosphorus transfer from terrestrial to aquatic environments. In *Organic Phosphorus in the Environment*, edited by B.L. Turner, E. Frossard, and D.S. Baldwin. CAB International, Wallingford, UK. pp. 269-294.
- Condon, L.M., **Turner, B.L.**, Cade-Menun, B.J., 2005. Chemistry and dynamics of soil organic phosphorus. In *Phosphorus: Agriculture and the Environment*, edited by J.T. Sims and A.N. Sharpley. Agronomy Monograph No. 46. American Society of Agronomy, Madison, Wisconsin, USA. pp. 87-121.
- **Turner, B.L.**, Frossard, E., Oberson, A., 2006. Enhancing phosphorus availability in low-fertility soils. In *Biological Approaches to Sustainable Soil Systems*, edited by N.T. Uphoff, A. Ball, E. Fernandes,

H. Herran, O. Husson, C. Palm, J. Pretty, P. Sanchez, N. Sanginga, and J. Thies. CRC Press, Boca Raton, Florida, USA. pp. 191-205.

- Oberson, A., Bünemann, E.K., Friessen, D.K., Rao, I.M., Smithson, P.C., **Turner, B.L.**, Frossard, E., 2006. Improving phosphorus fertility in tropical soils through biological interventions. In *Biological Approaches to Sustainable Soil Systems*, edited by N.T. Uphoff, A. Ball, E. Fernandes, H. Herran, O. Husson, C. Palm, J. Pretty, P. Sanchez, N. Sanginga, and J. Thies. CRC Press, Boca Raton, Florida, USA. pp. 531-546.
- **Turner, B.L.**, Richardson, A.E., Mullaney, E.J., 2007. Preface. In *Inositol Phosphates: Linking Agriculture and the Environment*, edited by B.L. Turner, A.E. Richardson, and E.J. Mullaney. CAB International, Wallingford, UK. pp. ix-x.
- Shears, S.B., **Turner, B.L.**, 2007. Nomenclature and terminology of inositol phosphates: clarification and a glossary of terms. In *Inositol Phosphates: Linking Agriculture and the Environment*, edited by B.L. Turner, A.E. Richardson, and E.J. Mullaney. CAB International, Wallingford, UK. pp. 1-6.
- **Turner, B.L.**, 2007. Inositol phosphates in soil: amounts, forms and significance of the phosphorylated inositol stereoisomers. In *Inositol Phosphates: Linking Agriculture and the Environment*, edited by B.L. Turner, A.E. Richardson, and E.J. Mullaney. CAB International, Wallingford, UK. pp. 186-206.
- **Turner, B.L.**, Leytem, A.B., 2007. Phosphorus speciation in soils and manures by solution ^{31}P NMR spectroscopy. In *Methods of Phosphorus Analysis in Soils, Sediments, and Waters, 2nd Edition*. Southern Cooperative Series Bulletin, North Carolina State University, USA, in press.

Abstracts and Short Papers

- **Turner, B.L.**, Haygarth, P.M. Phosphorus leaching below grassland soils. *Proceedings of the Diffuse Pollution and Agriculture II Conference, Edinburgh, Scotland, 9–11 April, 1997*.
- **Turner, B.L.**, Haygarth, P.M. Phosphorus leaching below grassland soils. *Proceedings of the 5th British Grassland Society Research Conference*. Seale Hayne, Devon, UK, 8–10 September 1997. British Grassland Society, Reading. pp. 25-26.
- **Turner, B.L.**, Haygarth, P.M. Hypothesis for the role of alkaline phosphatase hydrolysable phosphorus (APHP) in soil phosphorus leaching. *Proceedings of Ecological Aspects of Phosphatase Activities*. Durham, UK, 9–12 September 1997.
- **Turner, B.L.**, Haygarth, P.M. Enzymatic determination of bioavailable organic phosphorus in runoff. *Proceedings of the OECD workshop on practical and innovative measures for the control of agricultural phosphorus losses to water*. Antrim, Northern Ireland, 16–19 June 1998, edited by R.H. Foy and R. Dils. pp. 82-83.
- **Turner, B.L.**, Haygarth, P.M. Phosphorus in leachate below grassland soils. *Proceedings of the OECD workshop on practical and innovative measures for the control of agricultural phosphorus losses to water*. Antrim, Northern Ireland, 16–19 June 1998, edited by R.H. Foy and R. Dils. pp. 152-153.
- Haygarth, P.M., **Turner, B.L.**, Fraser, A.I. Transfer of phosphorus from agricultural soils to water: A multidisciplinary approach. *Proceedings of the 16 ISSS Congress of Soil Science*. Montpellier, France, 20–26 August 1998. CD ROM Version.
- **Turner, B.L.**, Haygarth, P.M., Wookey, P.A. The role of biological mechanisms in phosphorus leaching from grassland soils. *Proceedings of the 16 ISSS Congress of Soil Science*. Montpellier, France, 20–26 August 1998. CD ROM Version.
- **Turner, B.L.**, Haygarth, P.M. Phosphorus leaching under cut grassland. *Proceedings of the International Association on Water Quality, 3 Research Conference*. Edinburgh, UK, 31 August–4 September 1998. Volume I, pp. 6-10.

- **Turner, B.L.**, Haygarth, P.M. Phosphorus forms and concentrations in leachate from four grassland soil types. *Proceedings of the Agriculture and Catchment Water Quality Meeting*. Society of Chemical Industry, London, 19 January 1999.
- **Turner, B.L.**, McKelvie, I.D. A novel technique for the pre-concentration and extraction of inositol hexakisphosphate from soil extracts with measurement by ³¹P nuclear magnetic resonance. *Proceedings of the 2nd European Symposium of NMR in Soil Science*. Freising-Weihenstephan, Germany, 27 February–1 March 2000.
- Haygarth, P.M., **Turner, B.L.**, Fraser, A.I., Jarvis, S.C., Harrod, T.R., Nash, D., Halliwell, D. Prioritising mitigation of soil phosphorus transfer in relation to water flows. *Proceedings of the European Grassland Federation EGF2000*. Copenhagen, Denmark, 22–26 May 2000.
- **Turner, B.L.**, Haygarth, P.M. Microbiological and enzymatic controls on soil phosphorus release to water. *Proceedings of the Soil Mineral-Organic Matter-Microorganism Interactions and Human Health*. Naples-Capri, Italy, 22–26 May 2000. pp. 65.
- **Turner, B.L.**, Baxter, R., Whitton, B.A. Phosphorus availability in phosphorus-deficient environments. *Proceedings of the International Symposium on Phosphorus in the Soil-Plant Continuum*. Beijing, China, 17–22 September 2000.
- **Turner, B.L.**, Haygarth, P.M. Phosphorus release to water after soil drying and rewetting. *Proceedings of the New Zealand Soil Science Society and Australian Soil Science Society Inc. 2nd Joint Meeting*. Lincoln University, Canterbury, New Zealand, 3–8 December 2000. Vol II, pp. 321-322.
- **Turner, B.L.**, McDowell, R.M. Alchemy within agriculture: Current perspectives on phosphorus solubilisation. *Proceedings of the International Phosphorus Transfer Workshop*. Plymouth, Devon, UK, 28 August–1 September 2001. pp. 15.
- Westermann, D.T., **Turner, B.L.**, Bjorneberg, D.L., Aase, J.K. Phosphorus release kinetics as affected by aqueous solutions. *Proceedings of the International Phosphorus Transfer Workshop*. Plymouth, Devon, UK, 28 August–1 September 2001. pp.64.
- **Turner, B.L.**, Baxter, R., Whitton, B.A. Biological phosphorus limitation in the northern Pennines, UK. *Proceedings of the British Soil Science Society Annual Meeting on Upland Soils*. University of Durham, Durham, UK, 3–5 September 2001.
- **Turner, B.L.**, Westermann, D.T., Bjorneberg, D.L., Aase, J.K. Phosphorus release kinetics as affected by aqueous solutions. *Research and Extension Regional Water Quality Conference*. Vancouver, Washington, USA, 20–21 February 2002.
- **Turner, B.L.**, Kay, M.A., Westermann, D.T. Colloidal phosphorus in runoff from calcareous western US soils. *American Society of Agronomy Annual Meeting*. Indianapolis, Indiana, USA, 10–14 November 2002.
- **Turner, B.L.**, Cade-Menun, B.J., Westermann, D.T. Organic phosphorus composition and potential bioavailability in irrigated arable soils of the western US. *American Society of Agronomy Annual Meeting*. Indianapolis, Indiana, USA, 10–14 November 2002.
- Westermann, D.T., **Turner, B.L.**, Bjorneberg, D.L. Factors affecting phosphorus release from western soils. *American Society of Agronomy Annual Meeting*. Indianapolis, Indiana, USA, 10–14 November 2002.
- **Turner, B.L.** Organic phosphorus transfer from terrestrial to aquatic systems. *Organic Phosphorus in the Environment*. Monte-Verita, Ascona, Switzerland, 13–18 July 2003.
- Hens, M., **Turner, B.L.**, Hockey, P.J. Chemical nature of soil organic phosphorus mobilised by organic anions. *Organic Phosphorus in the Environment*. Monte-Verita, Ascona, Switzerland, 13–18 July 2003.
- Leytem, A.B., **Turner, B.L.**, Raboy, V. Influence of manure phytic acid on phosphorus solubility in soil. *Organic Phosphorus in the Environment*. Monte-Verita, Ascona, Switzerland, 13–18 July 2003.

- Whitton, B.A., Ellwood, N.T.W., **Turner, B.L.** Utilization of organic phosphorus by algae and mosses. *Organic Phosphorus in the Environment*. Monte-Verita, Ascona, Switzerland, 13–18 July 2003.
- Hens, M., **Turner, B.L.**, Hockey, P.J. Chemical nature and bioavailability of soil organic phosphorus mobilised by organic anions. *Second International Symposium on Phosphorus Dynamics in the Soil–Plant Continuum*. Perth, Australia, September 2003. pp. 16-17.
- **Turner, B.L.** Characterization of phosphorus in animal manures. *Symposium on Manure and Compost Analysis, American Society of Agronomy Annual Meeting*. Denver, Colorado, 2–6 November 2003.
- Maguire, R.O., Sims, J.T., Saylor, W.W., **Turner, B.L.**, Angel, R., Applegate, T.J. Influence of phytase addition to poultry diets on phosphorus forms and solubility in litters and amended soils. *American Society of Agronomy Annual Meeting*. Denver, Colorado, USA, 2–6 November 2003.
- **Turner, B.L.**, Westermann, D.T., Kay, M.A., Brown, B., Stevens, R. Phosphorus transfer in runoff from cultivated western US soils by simulated rainfall. *American Society of Agronomy Annual Meeting*. Denver, Colorado, USA, 2–6 November 2003.
- Leytem, A.B., **Turner, B.L.**, Raboy, V. Influence of manure phytic acid on phosphorus solubility in soil. *American Society of Agronomy Annual Meeting*. Denver, Colorado, USA, 2–6 November 2003.
- Maguire, R.O., Sims, J.T., Saylor, W.W., **Turner, B.L.**, Angel, R., Applegate, T.J. Phosphorus and phytase in poultry diets: Environmental implications. *Midwest Poultry Federation Convention*. St Paul, Minnesota, USA, 16–18 March 2004.
- **Turner, B.L.**, Newman, S., Newman, J. Soil phosphorus composition along nutrient gradients in a subtropical wetland. *American Society of Limnology and Oceanography Annual Meeting*. Savannah, Georgia, USA, 13–17 June 2004.
- **Turner, B.L.**, Reddy, K.R., Newman, S., Newman, J. Phosphorus composition in benthic floc and soil along nutrient gradients in a subtropical wetland. *12th International Meeting of the International Humic Substances Society*. São Pedro, Brazil, 26–30 July 2004.
- Leytem, A.B., **Turner, B.L.** Phosphorus compounds in sequential extracts of animal manures. *American Society of Agronomy Annual Meeting*. Seattle, Washington, USA, 31 October–4 November 2004.
- **Turner, B.L.**, Reddy, K.R., Newman, S., Newman, J. Phosphorus compounds in subtropical wetlands. *American Society of Agronomy Annual Meeting*. Seattle, Washington, USA, 31 October–4 November 2004.
- Newman, S., McCormick, P.V., Reddy, K.R., **Turner, B.L.** Phosphorus enrichment and restoration of the Everglades. *9th International Symposium on the Biogeochemistry of Wetlands*. Baton Rouge, Louisiana, USA, 20–23 March 2005.
- Leytem, A.B., **Turner, B.L.**, Raboy, V., Petersen, K.L., 2005. Linking manure properties to soil phosphorus solubility. *Western Nutrient Management Conference*. Salt Lake City, Utah, USA, 2–4 March 2005. 2005 Proceedings (Volume 6), pp. 114-120.
- **Turner, B.L.** Inositol phosphates in soils: the enigma of the phosphorylated stereoisomers. *Inositol Phosphates in the Soil–Plant–Animal Continuum: Linking Agriculture and Environment*. Sun Valley, Idaho, USA, 21–24 August 2005.
- Powers, J.S., Reed, H.J., **Turner, B.L.** Diversity and abundance of inositol phosphate-utilizing bacteria in terrestrial and aquatic ecosystems on Cape Cod, Massachusetts USA. *Inositol Phosphates in the Soil–Plant–Animal Continuum: Linking Agriculture and Environment*. Sun Valley, Idaho, USA, 21–24 August 2005.
- Condrón, L.M., **Turner, B.L.**, Mahieu, N., Chen, C.R. Quantification and bioavailability of scyllo-inositol hexakisphosphate in pasture soils. *Inositol Phosphates in the Soil–Plant–Animal Continuum: Linking Agriculture and Environment*. Sun Valley, Idaho, USA, 21–24 August 2005.

- Leytem, A.B., **Turner, B.L.** Quantifying phosphorus compounds in animal manures by solution phosphorus-31 nuclear magnetic resonance spectroscopy. *Inositol Phosphates in the Soil-Plant-Animal Continuum: Linking Agriculture and Environment*. Sun Valley, Idaho, USA, 21–24 August 2005.
- McGrath, J., Sims, J.T., Maguire, R., Saylor, W.W., Angel, R.R., **Turner, B.L.** Impact of dietary phytase on broiler litter phosphorus forms before and after storage. *American Society of Agronomy Annual Meeting*. Salt Lake City, Utah, USA, 6–10 November 2005.
- **Turner, B.L.**, Newman, S., Reddy, K.R. Overestimation of organic phosphorus in wetland sediments by alkaline extraction and molybdate colorimetry. *American Society of Limnology and Oceanography Annual Meeting*. Victoria, British Columbia, Canada, 4–9 June 2006.
- **Turner, B.L.**, Condrón, L.M., Murthy, P.P.N. Advances in soil organic phosphorus characterization by solution ^{31}P NMR spectroscopy. *3rd European Symposium on NMR Spectroscopy in Soil, Geo and Environmental Sciences*. Freising, Germany, 6–9 August 2006.
- Cooper, W.T., Reddy, K.R., Newman, S., **Turner, B.L.** ^{31}P and ^{13}C NMR characterization of organic phosphorus sequestration in wetland soils. *3rd European Symposium on NMR Spectroscopy in Soil, Geo and Environmental Sciences*. Freising, Germany, 6–9 August 2006.
- **Turner, B.L.**, Condrón, L.M., Richardson, S.J. Transformations of soil organic phosphorus during ecosystem development. *American Society of Agronomy Annual Meeting*. Indianapolis, Indiana, USA, 12–16 November 2006.
- Cheesman, A., **Turner, B.L.**, Reddy, K.R., Newman, S., Cooper, W.T. Organic phosphorus speciation in a range of wetlands. *American Society of Agronomy Annual Meeting*. Indianapolis, Indiana, USA, 12–16 November 2006.
- Allison, V.J., Condrón, L.M., Peltzer, D.A., Richardson, S.J., **Turner, B.L.** Shifts in ecosystem stoichiometry and microbial community composition control extracellular enzymatic activity along the Franz Josef soil development chronosequence. *New Zealand Soil Science Society Meeting*. Rotorua, New Zealand, 27–30 November 2006.
- **Turner, B.L.** The chronosequence concept and the paradox of hyper-diverse tropical forests. *Long Term Chronosequences, Old Soils, and Ecosystem Functioning*. Christchurch, New Zealand, 29–31 January 2007.
- Condrón, L.M., **Turner, B.L.**, Richardson, S.J., Peltzer, D.A., Allison, V.J. Transformations of soil organic phosphorus during ecosystem development. *Long Term Chronosequences, Old Soils, and Ecosystem Functioning*. Christchurch, New Zealand, 29–31 January 2007.
- Allison, V.J., Condrón, L.M., Peltzer, D.A., Richardson, S.J., **Turner, B.L.** Shifts in ecosystem stoichiometry and microbial community composition control extracellular enzymatic activity along the Franz Josef soil development chronosequence. *Long Term Chronosequences, Old Soils, and Ecosystem Functioning*. Christchurch, New Zealand, 29–31 January 2007.
- Cheesman, A.W., **Turner, B.L.**, Reddy, K.R., Newman, S., Cooper, W.T. Phosphorus sequestration in wetland soils: a global assessment. *10th International Symposium on Wetland Biogeochemistry: Frontiers in Biogeochemistry*. Annapolis, Maryland, USA, 1–4 April 2007.
- Cooper, W.T., El-Rafai, H., Cheesman, A.W., Reddy, K.R., **Turner, B.L.**, Newman, S. Linking phosphorus and carbon cycles in wetland soils. *10th International Symposium on Wetland Biogeochemistry: Frontiers in Biogeochemistry*. Annapolis, Maryland, USA, 1–4 April 2007.
- Okajima, S., Unno, Y., Wasaki, J., Shinano, T., **Turner, B.L.**, Sakurai, N., Shibata, D., Osaki, M. Plants can utilize soil phytate. *Biennial Congress on Molecular Plant-Microbe Interactions*. Sorrento, Italy, 21–27 July 2007.
- **Turner, B.L.** Soil organic phosphorus and the nutrition of tropical forests. *Ecological Society of America Annual Meeting*. San Jose, California, USA, 5–10 August 2007.

- Engelbrecht, B.M.J., Comita, L.S., Condit, R., Kursar, T.A., Tyree, M.T., **Turner, B.L.**, Hubbell, S.P. Drought sensitivity shapes species distribution patterns in tropical forests. *Ecological Society of America Annual Meeting*. San Jose, California, USA, 5–10 August 2007.
- **Turner, B.L.** Soil organic phosphorus and the nutrition of plants in natural and agricultural ecosystems. *International Symposium on Plant Science for Biomass and Food Production in Acid Soils: Recent Advances in Physiology, Genetics and Genomics Studies*, Sapporo, Japan, 25–26 September 2007.