

Curriculum Vitae

Dr. Matthew Knox

Postdoctoral Researcher, Colorado State University

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EDUCATION

PhD	University of Waikato	2007-2013
Thesis Title: Diversity of New Zealand Deep-Sea Amphipoda.		
MSc	University of Waikato	2004-05
BSc	University of Waikato	2001-03

PROFESSIONAL EMPLOYMENT

2013 – present.	Post doctoral researcher at Colorado State University working under Dr. Diana Wall as a soil ecologist with special interest in the effect of climate change on Antarctic nematodes.
2011 – 2013.	Lab manager / advanced technician at Pacific Biosystematics Research Laboratory, University of Waikato.
2012 – 2013	Research technician at Thermophile Research Unit University of Waikato.
2012 – 2013	Technician at DNA Sequencing Facility University of Waikato.
2008	Undertook work at the Canadian Centre for DNA Barcoding.
2007 – 2008	Research technician at Pacific Biosystematics Research Laboratory, University of Waikato.

OTHER ACTIVITIES, DISTINCTIONS AND AWARDS

School of Global Environmental Sustainability, Colorado State University, Antarctic Lecture Series coordinator, 2013 – present.

Wall lab website administrator 2013 – present.

Tertiary Education Commission Top Achiever Doctoral Scholarship, 2008

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RESEARCH INTERESTS / EXPERTISE

Ecosystem function, molecular ecology, ecology of soil nematodes and micro-arthropods, deep-sea ecology, polar ecology, freshwater environmental monitoring, invasive species, biogeography, invertebrate taxonomy.

SCIENTIFIC SERVICE:

REFEREED PUBLICATIONS

Adams BJ, Wall DH, Virginia RA, Broos E, **Knox MA**. (2014) Ecological biogeography of the terrestrial nematodes of Victoria Land, Antarctica. *ZooKeys*. **419**, 29-71.

Wall DH, **Knox MA**. (2014) Biodiversity. Reference module in Earth Systems and Environmental Sciences. Elsevier.

Knox MA, Hogg ID, Pilditch CA, Loerz A, Hebert PDN, Steinke D (2012) Mitochondrial DNA (COI) analyses reveal that amphipod diversity is associated with environmental heterogeneity in deep-sea habitats. *Molecular Ecology*, **21**, 4885-4897.

Knox MA, Hogg ID, Pilditch CA, Loerz A (2012) Abundance and diversity of epibenthic amphipods (Crustacea) from contrasting bathyal habitats. *Deep-sea Research I*, **62**, 1–9.

Knox MA, Hogg ID, Pilditch CA (2011) The role of vicariance and dispersal on New Zealand's estuarine biodiversity, the case of *Paracorophium* (Crustacea: Amphipoda). *Biological Journal of the Linnean Society*, **103**, 863–874.

Makino W, **Knox MA**, Duggan IC (2010) Invasion, genetic variation and species identity of the calanoid copepod *Sinodiaptomus valkanovi*. *Freshwater Biology*, **55**, 375–386.

SUBMITTED OR IN-PRESS PUBLICATIONS

Knox MA, Wall DH, Virginia RA, Vandegehuchte ML, San Gil I, Adams BA (*Submitted Polar Biology*) Impact of diurnal freeze-thaw cycles on populations of the nematode *Scottinema lindsayae* in Taylor Valley, Antarctica.

Banks J, Demetras N, Hogg ID, **Knox MA**, West D (*Submitted New Zealand Journal of Zoology*) Monitoring brown trout (*Salmo trutta*) eradication in a wildlife sanctuary using environmental DNA.

Knox MA, Hogg ID, Pilditch CA, Hebert PDN, Steinke D (*Submitted Biological Journal of the Linnean Society*) Vicariant evolution in deep-sea amphipods (Crustacea).

CONTRACT REPORTS

Knox MA, Hicks BJ, Banks JC, Hogg ID (2008) Fish biosurveillance by genetic methods: a feasibility study. *CBER Contract Report 90*.

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RECENT CONFERENCE PROCEEDINGS

Knox, MA, Cox, DJ, Adams, BJ, deTomasel, CM, Virginia RA and Wall DH (2014) Nematode species distributions, demographics and survival in response to freeze-thaw cycles in soils of the McMurdo Dry Valleys, Antarctica. *Poster presentation at Scientific Committee on Antarctic Research Open Science Conference, Auckland, NZ.*

Knox MA, Hogg ID, Pilditch CA, Loerz A, Hebert PDN, Steinke D (2012) Diversity and evolution of New Zealand deep-sea Amphipoda examined using molecular methods. *Oral Presentation at the 13th Deep-Sea Biology Symposium, Wellington, NZ.*

Knox MA, Hogg ID, Pilditch CA, Loerz A (2011) DNA barcodes reveal contrasting assemblages of phoxocephalid amphipods among Deep Sea continental shelf habitats off New Zealand. *Oral Presentation at the Fourth International Barcode of Life Conference, Adelaide, Australia.*

Knox MA, Hogg ID, Pilditch CA, Loerz A (2009) Patterns of amphipod biodiversity on Chatham Rise and Challenger Plateau. *Oral Presentation at the Joint New Zealand Marine Sciences and Meteorological Societies conference, Auckland, NZ.*

OTHER MEETINGS / WORKSHOPS ATTENDED

MCM LTER PI Meeting Oct 10-11 2013. University of Colorado, Boulder, Colorado, USA.

Basic Course in Nematology. June 3-14 2013. Laboratory of Nematology, Wageningen University, Wageningen, Netherlands.

Summer Soil Institute CSU . August 2013.

Transantarctic Mountains Science Meeting, September 23-24, 2013. University of Minnesota campus, Minneapolis, Minnesota, USA.

EDUCATION/TEACHING ACTIVITIES

2014 – Presenter at Colorado Springs Science Festival Antarctic Discovery Program.

2012/13 – Lecturer for BIOL565, Molecular Ecology. University of Waikato.

2011-13 – Taught molecular techniques for undergraduate and postgraduate research projects undertaken at Pacific Biosystematics Research Laboratory, University of Waikato.

2008-2013 – Lab tutor for several undergraduate classes including BIOL201 Evolution and Diversity of Life, BIOL234 Functional Animal Biology, BIOL313 Applied Freshwater Ecology, BIOL314 Marine Biology and Monitoring, BIOL338 Advanced Zoology. University of Waikato.

UNDERGRADUATE STUDENT MENTORING : Deanna Cox, CSU 2013-2014

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REFEREES

Dr. Diana Wall: Post doc advisor, 2013-present

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1878 Campus Delivery,
Fort Collins, Colorado, 80523-1878,
USA

Telephone: [+1] (970) 491-2504

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E-mail: Diana.Wall@colostate.edu

Associate Professor Ian Hogg: Chief PhD and MSc supervisor / employer, 2005-2013

Address: Department of Biological Sciences University of Waikato
Private Bag 3105
Hamilton,
New Zealand

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E-mail: hogg@waikato.ac.nz

Professor Craig Cary: Employer, 2013-2014

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New Zealand

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