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INTERNATIONAL SYMPOSIUM ON CLIMATE CHANGE AND THE ROLE OF EDUCATION

Bishop Grosseteste University, Lincoln, UK

12th and 13th April, 2019



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INTERNATIONAL SYMPOSIUM ON CLIMATE CHANGE AND THE ROLE OF EDUCATION

Bishop Grosseteste University, Lincoln, UK 12th and 13th April, 2019



If you are interested in attending, please register at:

<https://www.bishopg.ac.uk/climatechangeinfo/>

Education is among the most efficient tools we have to effectively deal with the scientific/ technical, economic, cultural and human developmental dimensions of climate change and its politicisation. Education in all its forms plays a crucial role, globally and locally, in engaging and empowering people to act to alleviate the impacts of the climate change.

This symposium is aimed at those working in, or concerned with, education and climate change. It provides an opportunity to showcase projects, approaches and activities that investigate or utilise education as a means to mitigate or adapt to climate change. It aims to provide a platform for critical perspectives on climate change and the role of education. The conference aims to facilitate networking and the development of partnerships, and promote collaborative efforts for those using education as a tool to overcome the challenges of climate change.

AIMS

The Symposium has the following aims:

- a) to provide interested actors from across the world with an opportunity to present their work in the field of climate change and the role of education
- b) to provide a platform for the exchange of information, ideas and experiences from projects and initiatives (whether completed, ongoing or emerging) focusing on climate change and education - an opportunity to share lessons learnt, successful initiatives and good practice from across the world.
- c) to discuss pedagogical approaches and experiences which explore the role of education in adapting to climate change and resilient development.
- d) to provide participants with networking opportunities with the overarching aim of promoting collaboration for future activities.



The symposium will be held in the Robert Hardy Building, Bishop Grosseteste University, Longdales Road, Lincoln, LN1 3DY, UK

Registration 12th and 13th April: 8am – 9am, Robert Hardy Building

Friday 12th April

9:10 – 9:30 Welcome remarks

Scott Fleming (Deputy Vice Chancellor, Bishop Grosseteste University)

9:30 – 9:50 Introduction to the symposium

Walter Leal (Manchester Metropolitan University) and Sarah Hemstock (Bishop Grosseteste University)

9:50 – 10:30 Key Note Address - Capacity Development for

Implementation of the Sendai Framework for Disaster Risk Reduction

Virginia Murray (Head of Global Disaster Risk Reduction, Public Health England; Visiting Professor in Health Protection, MRC-HPA Centre for Environment and Health, Imperial College and King's College, London; Policy Fellow Alum, Centre for Science and Policy, Cambridge University). Virginia has been a Coordinating Lead Author for the Intergovernmental Panel on Climate Change Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, published in March 2012. She has been the UK Government member on the UN International Strategy for Disaster Scientific and Technical Advisory Group since 2008 and was vice-chair. She was the Chair of the Science & Technology Organising Committee for the UNISDR Science and Technology Conference on the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, in January 2016. Prior to this, she was Head of Extreme Events and Health Protection, Public Health England. With the Extreme Events team, she helped to develop evidence based information and advice on flooding, heat, cold, volcanic ash, and other extreme weather and natural hazards events. Virginia has published extensively.

10:30 – 11:00 Break

11:00 – 13:00 Parallel Sessions (2 presentation sessions).

Session A:

11:00 – 11:30 Citizen Social Science for More Integrative and Effective Climate Action: A Science-Policy Perspective

Andrew Kythreotis (School of Geography, University of Lincoln, Lincoln, United Kingdom; Tyndall Centre for Climate Change Research, University of East Anglia, Norwich, United Kingdom; School of Psychology, Cardiff University, Cardiff, United Kingdom).

AKythreotis@lincoln.ac.uk





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11:30 – 12:00 Researching Climate Change in Their Own Backyard – Inquiry-based Learning as a Promising Approach for Senior Class Students

Sebastian Brumann, Ulrike Ohl and Carolin Schackert (University of Augsburg, Germany).

sebastian.brumann@geo.uni-augsburg.de

ulrike.ohl@geo.uni-augsburg.de

carolin.schackert@geo.uni-augsburg.de

12:00 – 12:30 Climate change education: when action research interacts with citizen science and nexus thinking in the Paraíba Watershed, South East Brazil

Catherine Walker (Sustainable Consumption Institute, University of Manchester, UK).

catherine.walker-2@manchester.ac.uk

12:30 – 13:00 Increasing environmental action through climate change education programmes that enable school students, teachers and technicians to contribute to genuine scientific research.

Elizabeth A.C. Rushton (Institute for Research in Schools, London, UK; University College London Institute of Education, London, UK)

erushton@researchinschools.org

Session B:

11:00 – 11:30 The role of informal education in climate change resilience: the Sandwatch model.

Gillian Cambers (Suva, Fiji); Paul Diamond (Toronto, Ontario, Canada); Michelle Verkooy (Tacoma, USA).

g_cambers@hotmail.com

pdiamondskn@gmail.com

mverkooy@gmail.com

11:30 – 12:00 Building community resilience through university engagement in DRR education

Yung-Fang Chen (School of Energy, Construction and Environment, Coventry University, UK).

aa4106@coventry.ac.uk

12:00 – 12:30 Realities of teaching about climate change in an island nation

Charles Pierce (Vanuatu Institute of Technology, Port Vila, Vanuatu)

charliepierce19@gmail.com





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12:30 – 13:00 Capacity building itinerary on Sustainable Energy Solutions for Islands and Territories at risk for the effects of climate change

Lara de Diego, María Luisa Marco, and Mirian Bravo (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, CIEMAT, Madrid, Spain).

lara.dediego@ciemat.es

13:00 – 14:00 Lunch

14:00 – 15:30 Parallel Sessions (2 presentation sessions).

Session C:

14:00 – 14:30 Developing a climate literacy framework for lower and upper secondary students

Inez Harker-Schuch (Fenner school of Environment and Society, The Australian National University, Australia)

Michel Watson (Research School of Population Health, The Australian National University, Australia)

inez.harker-schuch@anu.edu.au

inez@earthspeople.org

14:30 – 15:00 Climate Change Education Across the Curriculum

Rahul Chopra, Aparna Joshi, Anita Nagarajan (Indian Institute of Science Education and Research (IISER), Pune, India)

Nathalie Fomproix (International Union of Biological Sciences (IUBS), Paris, France)

L.S. Shashidhara (Indian Institute of Science Education and Research (IISER), Pune, India; International Union of Biological Sciences (IUBS), Paris, France)

On behalf of all the partners of the project: Trans-disciplinary Research Oriented Pedagogy for Improving Climate Studies and Understanding (TROP ICSU)

ls.shashidhara@iiserpune.ac.in

15:00 – 15:30 A Plexus Curriculum in School Geography – a holistic approach to geographical education for an endangered planet

Phil Wood and Steve Puttick (Bishop Grosseteste University, Lincoln, UK)

philip.wood@bishopg.ac.uk

Session D:

14:00 – 14:30 The Benefits and Downsides of Multidisciplinary Education Relating to Climate Change

Lino Briguglio and Stefano Moncada (University of Malta, Malta).

Lino.briguglio@um.edu.mt

stefano.moncada@um.edu.mt





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14:30 – 15:00 Taking current climate change research to the classroom
– The “Will hermit crabs go hungry in future oceans?” project

Christina C. Roggatz (Energy & Environment Institute, University of Hull, Hull, UK)

C.Roggatz@hull.ac.uk

Neil Kenningham (Newland St John's CE Academy, Hull, UK) deputyhead@nsj.hull.sch.uk

Helga D. Bartels-Hardege (Department of Biological and Marine Sciences, University of Hull, Hull, UK) H.Hardege@hull.ac.uk

15:00 – 15:30 Sixty Seconds Above Sixty Degrees: Connecting Arctic and Non-Arctic Classrooms in the Age of Climate Change

Mary E. Short and Laura C. Engel (The George Washington University, Washington D.C.USA) bshort@gwu.edu; Lce@gwu.edu

15:30 – 16:00 Break

16:00 – 17:00 Parallel Sessions (2 presentation sessions).

Session E:

16:00 – 16:30 From academia to response-ability

Raichael Lock (University of Manchester, Manchester, UK)

raichael.lock@manchester.ac.uk

16:30 – 17:00 Fiery Spirits: Educational Opportunities for Accelerating Action on Climate Change and Sustainable Development

Terence Edward Miller (University of Lincoln, Lincoln, UK)

terryemilleruk@aol.com

Session F:

16:00 – 16:30 Engaging and empowering business management students to support the mitigation of climate change through sustainability auditing

Kay Emblen-Perry (Worcester Business School, University of Worcester, Worcester, UK)

k.emblenperry@worc.ac.uk

16:30 – 17:00 Learning to be leaders? Exploring the role of education in preparing UK youth to participate in United Nations climate change negotiations.

Harriet Thew (School of Earth and Environment, University of Leeds, Leeds, UK)

h.thew@leeds.ac.uk

17:00 – 17:30 Roundup

19:00 – 22:00 Conference Dinner





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Saturday 13th April

8:00 – 9:00 Coffee and Welcome

9:00 – 9:30 Key Note Address – Earth, Air, Fire and Ice: exploring links between polar ice melt, global warming and local-scale extreme weather

Edward Hanna (Professor of Climate Science and Meteorology, School of Geography, Lincoln University, Lincoln, UK)

Edward received a BSc in Planetary Science from University College London in 1995 and completed a PhD in Satellite Remote Sensing of Antarctic Sea Ice and Climatic Couplings at the University of Bristol in 1998. This was followed by a period of postdoctoral research in the Department of Meteorology, University of Reading between 1998 and 2000 before being appointed as Lecturer in Meteorology at the Institute of Marine Studies, University of Plymouth in 2000. In 2003 Edward was appointed as Lecturer in Climate Change at the Department of Geography, University of Sheffield and was awarded a personal chair in 2013. In January 2017 he moved to the University of Lincoln where he is Professor in Climate Science and Meteorology in the recently-established and rapidly-growing School of Geography. He was a Contributing Author of the Intergovernmental Panel on Climate Change's Fifth Assessment Report, is a regular contributor to Arctic Report Cards of the US National Oceanographic & Atmospheric Administration, and in May 2018 was awarded the International Journal of Climatology Editor's Award of the Royal Meteorological Society.

9:30 – 11.00 Parallel Sessions (2 presentation sessions).

Session G:

9:30 – 10:00 Why is early adolescence so pivotal in the climate change communication and education arena?

Inez Harker-Schuch (Fenner school of Environment and Society, The Australian National University, Acton ACT, Australia).

inez.harker-schuch@anu.edu.au

inez@earthspeople.org

10:00 – 10:30 Teenagers expand their conceptions of climate change adaptation through research-education cooperation

Oliver Gerald Schrot, Lars Keller, Dunja Peduzzi, Alina Kuthe

(Institute of Geography, University of Innsbruck Innsbruck, Austria)

Oliver.Schrot@uibk.ac.at; Lars.Keller@uibk.ac.at; Dunja.Peduzzi@uibk.ac.at;

Alina.Kuthe@uibk.ac.at

Maximilian Riede (alpS-GmbH, Innsbruck, Austria)

riede@alps-gmbh.com

David Ludwig (Knowledge, Technology and Innovation (KTI), Wageningen University and Research, Wageningen, The Netherlands)

david.ludwig@wur.nl





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10:30 – 11:00 Adolescents' Perceptions of the Psychological Distance to Climate Change, Its Relevance for Building Concern about It, and the Potential for Education

Moritz Gubler (Institute for Research, Development and Evaluation, University of Teacher Education Bern, Bern, Switzerland; Climatology Group, Institute of Geography, University of Bern, Bern, Switzerland)

moritz.gubler@phbern.ch

Adrian Bruegger (Department of Consumer Behaviour, Faculty of Business, Economics and Social Sciences, University of Bern, Bern, Switzerland) adrian.bruegger@imu.unibe.ch

Marc Eyer (Institute for Upper Secondary Teacher Education, University of Teacher Education Bern, Bern, Switzerland) marc.eyer@phbern.ch

Session H:

9:30 – 10:00 Developing climate adaptation strategies in coastal subsistence communities in LEDCs: education works both ways

Sian Davies-Vollum, Deb Raha and Daniel Koomson (Environmental Sustainability Research Centre, University of Derby, Derby, UK)

s.davies-vollum@derby.ac.uk

10:00 – 10:30 Differentiated Knowledge Production on Climate Change in Rural Fiji: How Women Utilise Diverse Information Sources to Improve their Adaptive Capacity

Dana Julia Loew (Lund University, Sweden; Bonn, Germany)

dana.loew@gmail.com

10:30 – 11:00 (Latent) potentials to incorporate and improve environmental knowledge using African Languages in Agriculture lessons in Malawi

Michael M. Kretzer and Russell H. Kaschulab (School of Languages & Literatures (African Language Studies Section), Rhodes University, Grahamstown/Makhanda, South Africa)

m.kretzer@ru.ac.za

r.kaschula@ru.ac.za

11:00 – 11:30 Break





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11:30 – 13:30 Parallel Sessions (2 presentation sessions).

Session I:

11:30 – 12:00 Addressing climate change at a much younger age than just at the decision-making level: Perceptions from primary school teachers in Fiji

P. Hausia Havea and A. De Ramon N' Yeurt (Pacific Centre for Environment and Sustainable Development, The University of the South Pacific, Suva, Fiji)

ilaisiainmoana@yahoo.com; antoine.nyeurt@usp.ac.fj

A. Tamani (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Suva, Fiji) tamani.apenisa@gmail.com

A. Takinana (Graduate School of Global Environmental Studies, Kyoto University, Kyoto, Japan) nunu.takinana@gmail.com

S. L. Hemstock (School of Humanities, Bishop Grosseteste University, Lincoln, UK)

sarah.hemstock@bishopg.ac.uk

H. Jacot Des Combes (National Disaster Management Office, Government of Marshall Islands, Republic of Marshall Islands) hjdc2000@yahoo.fr

12:00 – 12:30 Learning with Idea Station: What children on one Canadian playground can teach us about Climate Change?

Sarah Hennessy (Faculty of Education, Western University, London, Canada)

shennes5@uwo.ca

12:30 – 13:00 Using a Masters course to explore the challenges and opportunities of incorporating Sustainability into a range of educational contexts

Alison Fox, Paula Addison-Pettit, Clare Lee and Kris Stutchbury with Masters students on the module EE830: Educating the Next Generation (School of Education, Childhood, Youth and Sport, The Open University, Milton Keynes, UK)

alison.fox@open.ac.uk

13:00 – 13:30 Recognition of Prior Learning (RPL) in Resilience (Climate Change Adaptation & Disaster Risk Reduction) in the Pacific: Opportunities and challenges in climate change education

Dr Helene Jacot Des Combes (National Disaster Management Office, Majuro, Republic of the Marshall Islands) helenejdc@hotmail.com; trabuatoka2508@gmail.com

Amelia Siga, Nixon Kua and Titilia Rabuatoka (SPC, Suva, Fiji) amelias@spc.int;

nixonk@spc.int; titiliar@spc.int

Leigh-Anne Buliruarua and Peni Hausia Havea

(Pacific Centre for Environment and Sustainable Development, The University of the South Pacific, Suva, Fiji) leighanne.buliruarua@usp.ac.fj; ilaisiainmoana@yahoo.com





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Session J:

11:30 – 12:00 Mathematics education and climate change

Mark Boylan (Sheffield Hallam University, Sheffield, UK) M.S.Boylan@shu.ac.uk

Alf Coles (University of Bristol, UK) alf.coles@bristol.ac.uk

12:00 – 12:30 Energy Transitions: Linking Energy and Climate Change

John H Perkins (The Evergreen State College, Kensington, California, USA)

perkinsj@evergreen.edu

12:30 – 13:00 Exploring energies of climate change education

Peter Kraftl and Arooj Khan (University of Birmingham, UK) p.kraftl@bham.ac.uk;

axk734@student.bham.ac.uk

13:00 – 13:30 Integrating climate change competencies into mechanical engineering education

Sven Linow (Hochschule Darmstadt, Fachbereich Maschinenbau und Kunststofftechnik; Darmstadt; Germany) sven.linow@h-da.de

13:30 – 14:30 Lunch

11:30 – 13:30 Parallel Sessions (2 TeachMeet sessions).

Session K:

14:30 – 15:15 TeachMeet: Inter-generational learning in practice.

It has become clear that the voice of children and young people has an ethical authenticity and persuasive force when young people demand to know what adults in positions of power are doing – or not doing- about the climate crisis. Facilitating learning led by knowledgeable young people requires a questioning of accepted power relationships and the role of organisations outside the normal boundaries of formal education.

This workshop will simulate a Teach Meet where we will share recent inter-professional and inter-generational learning, which enlivens the practice of climate change mitigation. We will describe the process of involving children as instigators or agents of learning rather than receivers or disruptors. We will map the resources and assets for support and information which lie beyond the classroom or lecture theatre. The urgency of challenge to climate damaging behaviours now requires the scaling up of school-based environmental education with local NGOs and campaign groups to mass public education or action-learning across whole City Regions. There will be a brief report on the Green Summit organised by the Greater Manchester City Region Mayor, Andy Burnham on 25th March 2019.

We aim to establish some principles for good public education as shared learning.

Lydia Meryll and Raichael Lock (Manchester Institute of Education, School of Environment, Education and Development (SEED), University of Manchester, Manchester, UK)

Raichael.Lock@manchester.ac.uk; lydia@cooptel.net; lydia.meryll@manchester.ac.uk





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Session L:

14:30 – 15:15 TeachMeet: Developing positive climate change education programmes in schools: from first steps to participation in genuine science research.

Positive climate change education programmes should provide students with the opportunity to learn about the impacts of climate change and develop a sense of agency that transforms this knowledge into pro-environmental behaviour.

This session introduces a range of ways in which primary and secondary school teachers can develop climate change education programmes. This session will be relevant to those who are considering or who are already involved in schools-based climate change education programmes and is led by a former geography teacher and current geography and education researcher.

A special emphasis is given to approaches that allow students to participate and contribute to research in climate change with a focus on biodiversity and the links between the environmental and mental and physical well-being.

This session will provide inspiration and practical guidance for developing both curricular and extra-curricular climate change education. Experiences from classrooms across England and Scotland will be shared including primary science and secondary biology, chemistry, geography, physics and psychology.

Case studies and examples will be shared to support teachers in developing climate change education networks that incorporate a range of partner organisations including charities, universities, learned societies and associations. Guidance will be given regarding accreditation and recognition for schools and students through external awards and funding. Elizabeth A.C. Rushton (Institute for Research in Schools, London, UK; University College London Institute of Education, London, UK) erushton@researchinschools.org

15:15 – 15:45 Break

15:45 – 16:45 Closing Session. Climate Change and the Role of Education... Where are we now? What do we do next? Future research network and strategic partnerships?

Throughout the symposium –

Video presentations. In an effort to reduce our carbon footprint, some participants have chosen to present via video and/or skype.

Posters. Posters will be on display throughout the symposium with an opportunity to chat to poster presenters at designated times.





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Session M:

Video presentations.

Climate Change Awareness among Young Learners: The Kenya Climate Change Art and Essay Competition 2018

Sheila Shefo Mbiru (The Low Emission and Climate Resilient Development (LECRD) Project, Nairobi, Kenya)
shefombiru@gmail.com

Delivery mode and learner emissions: A comparative study from Botswana

Alexis Carr, Stanley Modesto, K.Balasubramanian, Kayla Ortlieb and John Lesperance (The Commonwealth of Learning, Burnaby, Canada)
acarr@col.org; stmodesto2006@gmail.com; Balakod@outlook.com;
kaylaortlieb@col.org; johntlesp@gmail.com

A model to integrate university education within cultural traditions for climate change resilience.

Keith Morrison (Sustainable Community Development Research Institute, New Zealand)
etenauna@hotmail.co.nz

Nurturing adaptive capacity through self-regulated learning for online postgraduate courses on climate change adaptation.

Keith Morrison (Sustainable Community Development Research Institute, New Zealand)
etenauna@hotmail.co.nz
Heena Lal and Moleen Monita Nand (The University of the South Pacific, Suva, Fiji)
moleennand@gmail.com

Diving Ecotourism as Climate Change Education Instrument: Greek Diving Instructors' perceptions

Skanavis Constantina, Kounani Aristeia, Maripas-Polymeris Georgios (Department of Environment, University of the Aegean, Greece) cskanav@aegean.gr; akounani@yahoo.gr;
env12045@env.aegean.gr





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Session N:

Poster presentations.

Promoting children's positive attitudes towards pro-environmental behaviours: encouraging understanding, agency and motivation through gamebooks

Jonathan Halls (University of Nottingham, University Park, Nottingham, UK)

jonathan.halls2@nottingham.ac.uk

Using climate change to develop critical thinking

Kathryn Aston (English Language Teaching Centre, University of Sheffield, UK)

k.j.aston@sheffield.ac.uk

THANK YOU FOR YOUR PARTICIPATION

ORGANISERS

Professor Walter Leal (Research and Transfer Centre "Sustainable Development and Climate Change Management" of the Hamburg University of Applied Sciences (Germany); Manchester Metropolitan University, International Climate Change Information Programme (ICCIP))
Dr Sarah Hemstock (Geography, School of Humanities, Bishop Grosseteste University, UK).

BGU Committee

Dr Steven Puttick (School of Teacher Development, Bishop Grosseteste University, UK)

Dr Mark Charlesworth (Geography, School of Humanities, Bishop Grosseteste University, UK)

Dr Robert Vonfriedeburg (History, School of Humanities, Bishop Grosseteste University, UK)

Dr Phil Wood (School of Teacher Development, Bishop Grosseteste University, UK)



Cooperating Organisations

- International Climate Change Information Programme (ICCIP)
- Baltic University Programme

WEBSITE:

<http://www.bishopg.ac.uk/climatechange>

FEES AND CHARGES

The registration fee is £200 for professionals. This fee includes lunches and coffee breaks on 12th-13th April 2019.

A limited number of places at a discounted fee of £40 per day or £60 for both days will be available for students and school teachers on a first come first served basis. The discounted fee will also include lunches and coffee breaks on appropriate days.

Additionally, there will be a conference dinner with guest speakers on the evening of 12th April 2019. Conference dinner tickets are available at £50 per person.

This is a self-funded event and the organisers are unable to pay any travel or accommodation costs of any kind. They are however happy to issue letters of invitation to support delegates to request funding for their participation.

The Symposium will provide participants with an outstanding opportunity to interact and network with delegates from around the world, and with a very broad range of experience and insights.





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CONTACT POINTS FOR SCIENTIFIC INPUTS AND STRATEGIC COOPERATION

All questions related to academic inputs and strategic partnerships, as well as the book, should be sent to:

Professor Walter Leal: info@iccup.net or

Dr Sarah Hemstock: sarah.hemstock@bishopg.ac.uk

CONFERENCE PROJECT MANAGER AND CONTACT POINT FOR FURTHER DETAILS

All questions related to registrations and accommodation should be sent to:

Bronwen Robson, School Professional Services Officer, Bishop Grosseteste University bronwen.robson@bishopg.ac.uk

