

Tuesday 4 July 2017

Pizza, speed talks and collaboration tools

CWRR had a successful kick-off of the new Seminar Series on 15 June 2017. While having pizza we listened to a handful of our Centre members having both fun and inspiring 2 minute speed talks. The theme of the first seminar was Knowledge-sharing and Collaboration, under which we looked into a variety of web based collaboration tools and platforms to be used by the Centre as a whole, and by the respective project teams. The seminar series is created to involve all staff and students; professors, lecturers, associates, contract, technical and supporting staff, research assistants and fellows, interns, post docs, PhD, MSc and honours students are welcome to participate. Next seminar, themed Cohesion and Teamwork is scheduled to take place on Thursday 27 July in room 211 and will be centered around the co-writing of joint journal articles.



A new Newsletter



The new CWRR Newsletter has been welcomed by the Centre members and beyond! We have now reached the second issue! The aim of the Newsletter is to keep every-body at the Centre updated about the movements and improvements – of our colleagues' achievements and endeavors, projects, outputs and outreach.

The Newsletter will come out monthly and requires inputs from all of us! Please send photos of your fieldtrips, information on your conferences, links to publications, and more, to CWRR@ukzn.ac.za or MalingaR@ukzn.ac.za

Meet one of CWRR's associate members

Dr. Gordon O'Brien is an established aquatic risk ecologist who obtained his PhD in Aquatic Health in 2012 from the University of Johannesburg. Dr. O'Brien specialises in regional scale ecological risk assessments, ichthyology, environmental flow (E-flow) assessments, aquatic biodiversity, ecosystem services and water resource management. His scientific profile includes the development of and application of regional scale ecological risk assessments methodologies, and E-flow management tools and frameworks. Dr. O'Brien is particularly interested in the evaluation of the relative risk of multiple stressors on a region scale to multiple socio-ecological endpoints and trade-offs between endpoints, where the dynamics of the ecosystem are addressed. Some noticeable products of Dr. O'Brien's ecological risk assessment research includes the development of PROBFLO, a holistic, ecological risk based E-flow assessment method, which has now been tested throughout Africa. Dr. O'Brien currently supervises 4 PhD students and 9 MSc students.



Important dates

◆ 10-14 July: IAHS 2017 Scientific Assembly in Port Elizabeth. CWRR is involved in organizing the conference and many of us will attend. Follow the conference on Twitter [@IAHS2017](https://twitter.com/IAHS2017). Read more at the [conference page](#).

◆ 27 July: CWRR Seminar, themed Cohesion and Teamwork, will take place at 11.00-12.00 in seminar room 211.

Honours class field trip to Cathedral Peak

Along with Mark Horan, Dr. Michele Warburton and Byron Gray, the twelve honours students of the course Advanced Hydrological Modelling went on a three day field trip to Cathedral Peak (15-17 March 2017). The aim of the field trip was to introduce the class to the procedures of field work and to become familiar with the catchments they are working with throughout the course. The class participated first hand in many activities such as infiltrometer tests, water clarity testing, calculations of stream discharge and the surveying of slopes. These skills are of importance for many of the students' research projects and for some it was the first time going to field. The class observed most of the equipment that is located within the catchments including various rain gauges, the cosmic ray probe, scintillometer, the eddy covariance system, heating chambers, soil respiration chambers and multiple weirs. The trip was both memorable to the students, and truly useful for the proceedings of their studies.



Field work by a Master student

Matthew Dickey is currently carrying out his field work at Two Streams, Seven Oaks, KZN, for his Master's thesis. He is investigating the effect of commercial sugarcane and forestry on runoff and sediment yield. Site visits entail collecting water samples, runoff and rain gauge data from each of his 36 runoff plots, installed in the sugarcane and in the *Acacia mearnsii* (black wattle). The frequency of sampling depends on precipitation events occurring, in summer this generally amounts to sample collection every two weeks. During dry periods when precipitation has not occurred for a length of time, site visits are conducted to ensure sight maintenance, where equipment is re-calibrated, batteries checked and runoff plots are cleared of debris. Furthermore, any unforeseen problems that arise are corrected. The field work is planned to be completed by August 2017. Matthew is supervised by Professor Trevor Hill.



Postdoc trip to Malawi

Two CWRR postdoctoral researchers, Dr. Lauren Bulcock and Dr. Rebecka Malinga, went to Malawi 5-14 June for their research within the Future Climate for Africa (FCFA) project [UMFULA](#). UMFULA is aiming at improving decision making under climate change, by developing site relevant climate information according to the needs in the two focus countries, Malawi and Tanzania. Dr. Bulcock is using the WEAP-model to evaluate potential food-energy-water trade-offs which could result from various infrastructure and development programs currently being considered in Malawi. Dr. Malinga explores decision making factors among smallholder farmers in relation to climate change, gender and food security, particularly smallscale sugarcane producers in the Chikwawa district. During their trip both researchers met a range of relevant stakeholders in order to understand local and national challenges and realities addressed within UMFULA.



Latest publications – journal articles

◆ Dr. Nick Rivers-Moore and others mapped over 1700 wetlands in Nelson Mandela Bay Municipality using manual digitisation and logistic regression modelling. Their work was published by *Wetlands Ecology and Management* late last year. [Read the paper here!](#)

◆ Prof. Simon Lorenz and others have written [an article](#) about the new branch of science, Hydropedology, which offers exciting research opportunities in South Africa. Their article was published in May/June 2017 by WRC's magazine *Water Wheel*.