



Making a difference - One drop at a time.

Words from CWRR Director

Tuesday 11 February 2020

Dear Members and Students of the CWRR

I would like to welcome you all back after the break and trust that you all had a good holiday! I hope that you managed to fully recharge your batteries for 2020, which I am sure will have exciting opportunities and challenges. The academic year is having a bumpy start at UKZN with disruptions of the registration by unhappy students. I sincerely hope that these are resolved quickly as the actions have negative impacts on the entire student population, staff and public perceptions of both UKZN and our graduates.

I would like to congratulate Dr. Alistair Clulow, Dr. Michele Toucher, Tinisha Chetty and Dr. David Clark on their election to serve in the CWRR ManCo for 2020. I would also like to thank Dr. Sabine Stuart-Hill for all her contributions to the CWRR while serving on ManCo until December 2019.

The 2020 CWRR ManCo has had their first meeting in January, discussed activities for the year and have assigned responsibilities to members in a number of areas including the following: strategic relationship development (Director/All), public profile and communication (Alistair), postgraduate students (Tinisha), team building (Marsha), CWRR Board matters (Jeff), information systems and project management (David/Jeff) and administration and centre operations (Marsha/Jeff). Progress with these will be communicated to all members throughout the year.

As I have stated previously, I am of the opinion that the success and sustainability of the CWRR depends on our collective efforts, and we need to continue building on the success of the CWRR to date. We need to ensure that our business model is sustainable in order to make an impact and thus contribute to society by our collective team effort. To do this, we need all members to actively engage in activities and to contribute enthusiasm and new ideas! My door is always open to any suggestions and contributions, so please feel free to communicate these to me.

Warm regards, Jeff Smithers, CWRR Director

The CWRR Newsletter

Welcome to the first issue of a new volume of the CWRR Newsletter. The Newsletter carries news and updates of the achievements and endeavors of CWRR's members, staff, associates and students.



The Newsletter is also available online at CWRR.ukzn.ac.za
For suggestions and queries, please email HenrikssonR@ukzn.ac.za

CWRR New Webpage

The CWRR is proud to announce our new website: <https://cwrr.ukzn.ac.za>.



Many thanks to Sean Thornton-Dibb, Richard Kunz, Corrette de Jager and UKZN staff from Corporate Affairs and ICS, for their parts in getting this done. The website has a new fresh look, it now conforms to the secure Https standards, and should operate better on mobile devices.

All web traffic using the old site link (<http://cwrr.ukzn.ac.za>) will be redirected to the new site.

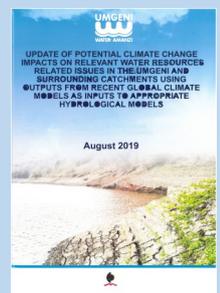
We have attempted to keep a similar structure so that a few of the core old site links still work. Please inform ThorntonS@ukzn.ac.za if you have any queries or comments on the new website.

Latest Publications

Assessment of three models for estimating daily net radiation in southern Africa. [Agricultural Water Management, 2020](#). Lindumusa Myeni, Mokhele Moeletsi and Alistair Clulow.

New Umgeni Water Report

Update of potential climate change impacts on relevant water resources related issues in the Umgeni and surrounding catchments using outputs from recent global circulation models as inputs to appropriate hydrological models. *Umgeni Water, 2019*. Roland Schulze and Stefanie Schütte. Available from Umgeni Water.



NEW CWRR PROJECTS

The project titled **“Towards sustainable and equitable management of water resources: Understanding the interlinkages between water, ecosystems and society through spatial mapping of ecosystem services and livelihood benefits”** has received funding from the Water Research Commission. The project will run over three years starting 1 April 2020 and is led by Dr. Rebecka Henriksson.

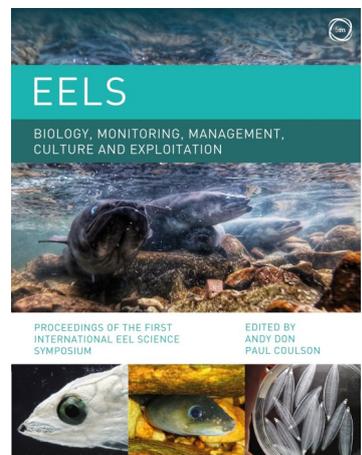
This project aims to develop a decision-support framework for sustainable water and natural resources management in the smallholder communities in the Cathedral Peak area of the Drakensberg. In order to address various angles of sustainable management of water and natural resources that simultaneously promotes development, we bring together experts from various scientific disciplines (hydrology, ecology and sustainability science), community development practitioners and local communities, using a transdisciplinary, participatory approach to address the following three objectives:

- ◆ Increase the understanding, by scientists and community stakeholders, of the natural resource base (water resources and ecosystems) from which the communities derive ecosystem services they depend on for their well-being and livelihoods
- ◆ Create a comprehensive, transdisciplinary, GIS tool to support local and regional decision making, including map layers of fine-scale land uses (social-ecological patches) and the spatial distribution of associated ecosystem services and livelihood benefits
- ◆ Through co-learning between scientists and community stakeholders, increase the understanding of management and decision making, design and testing of sustainable natural resources management innovations

The project team members at this stage are: Dr. Michele Toucher (CWRR and SAEON), Prof. Tim O'Connor (SAEON) and Erna Kruger (Mahlathini Development Foundation). Two MSc students will join the project; Pamela Mogane, previous Hydrology honours student at CWRR, and Mdoda Ngwenya, who did his honours in Environmental Sciences at Rhodes University.

New book on eels

Alongside with over 80 authors from around the world, researchers from the Aquatic Ecosystem Research (AER) group at UKZN have contributed to a new book on eels, published by M5 Books, edited by P. Coulson and A. Don. The book, **“Eels Biology, Monitoring, Management, Culture and Exploitation”**, compiles the proceedings of the first international Eel Science Symposium in 2017, with the aim of showing the importance of eels ecologically, economically, culturally and historically. UKZN authors Céline Hanzen, Colleen Downs and Gordon O'Brien contributed to the chapter “Distribution, ecology, and status of Anguillid eels in East Africa and the Western Indian Ocean”, [which can be found here](#). The book has a photograph of the endemic African Longfin Eel (*Anguilla mossambica*) on its cover. *By Céline Hanzen*



CWRR postdoc on Freshwater Biodiversity

Ecologist and wetland geomorphologist Dr. Damian Walters, is a SANBI Freshwater Biodiversity postdoctoral researcher at the CWRR, supervised by CWRR Associate Dr. Donovan Kotze. Walter's research interests are wetlands, rivers, environmental change, resilience and ecosystem restoration. His postdoc research focuses on thresholds of change in wetlands and how these relate to the planning and implementation of wetland restoration within a South African context. The objective of his research is to identify field based indicators of breached (or approaching) thresholds in wetlands that can be used to inform wetland restoration assessment and planning. Walter completed his PhD in Environment and Development at UKZN where he was supervised by Dr. Kotze and Prof. Fred Ellery (Rhodes University). His PhD investigated the sustainability of small scale agriculture within wetlands from an ecological, hydrological and geomorphological perspective.