

GWD Western Cape: Talk and Networking Sessions, 29 July and 26 August 2015

The huge success of the first Western Cape Ground Water Division talk held earlier this year paved the way for two more talks and networking sessions at Stellenbosch University. The second talk hosted on the 29th of July marked the return of undergraduate students from their vacation, and an exciting way to kick off the new semester. And they came out in their numbers to support current MSc student Kelley Swana, who along with Dr Ricky Murray and Dr Jodie Miller presented their joint research marking two hard years of work. The topic: **‘Hydrogeochemical fingerprinting of shallow groundwater and natural springs in the Karoo Basin as a precursor to shale gas development and what it tells us about the composition of deeper groundwater’**. Although a mouthful to digest (and not a scientific study on fracking as the controversial word may suggest), the research provides a groundbreaking effort to fingerprint the largely undefined deeper groundwaters of the Karoo. Well presented by the three accomplished speakers, the audience was in agreement that the chemical determinants used to define deep groundwater (based on their accuracy, ease of use and cost efficiency) could form an integral part of continued groundwater monitoring in the greater Karoo basin, particularly important in light of the proposed fracking. The full report is now available on the WRC website, and can be downloaded from <http://www.wrc.org.za/Pages/DisplayItem.aspx?ItemID=11321>



Ms Kelley Swana, Dr Jodie Miller and Dr Ricky Murray presented their joint research on the deep groundwater in the Karoo at the second groundwater talk of 2015



Prof. Yongxin Xu, Ms Kelley Swana and Dr Roger Parsons enjoying a glass of wine at the networking event

With big shoes to fill, Roger Parsons set out to present his talk **'A journey of discovery – the hidden hydrology of Groenvlei'** on the 26th of August. With this interesting title and his outstanding presentation style, his work was accessible to all attending and gave us a few moments to have a good laugh! The work was based on his PhD research on the role of groundwater in sustaining the Groenvlei lake, located along the N2 near the town of Knysna. Not only a pure hydrological discovery, Parsons also discussed his personal rediscovery of the what it means to be a scientist, the poor science which he had to deal with along the way, and why he chose to tackle his PhD later in his career. The simple and engaging way in which he presented his work not only left students (and consultants) with a greater understanding of this vlei, but also with a new outlook on the scientific process, and how they could apply some of the tricks he learnt to their own research. He concluded that there is still much research to be completed in the field area (with good monitoring sites available), and the possibility for an MSc or PhD project! Roger's PhD can be downloaded from:



Roger Parsons presented on his PhD research on the contribution of groundwater to Groenvlei, as well as his own scientific discovery along the way

<http://etd.uovs.ac.za/ETD-db//theses/available/etd-11192014-131215/unrestricted/ParsonsRP.pdf>

Both events at Stellenbosch University pulled crowds of roughly 40 people, with the cold Cape weather unable to keep them at home. The networking events were the perfect setting for discussions with students, academics and consultants, over snacks and glass of good Stellenbosch wine. During the last talk Julian Conrad encouraged members to share what they would like the Western Cape branch to entail, whether it be additional talks, field trips or any other event. The response was excellent and the Western Cape GWD will develop even further. We look forward to future learning opportunities and scientific interaction!

Julian Conrad (Geohydrologist - GEOSS) and Anya Eilers (MSc student - Stellenbosch University)

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