

**ACCESS Annual Cycle and Seasonality Programme Launch Event**  
**4<sup>th</sup> DST Global Change Symposium**  
**06 December 2018, Bolivia Lodge Polokwane, 08h00-13h00**

**DRAFT PORGRAMME**

**08h00: Welcome and introduction – Dr Neville Sweijd (ACCESS Director)**

**08h10: Remarks – representative of DST and/or NRF**

**08h20:** Overview of: Impacts of changing seasonal cycles and elevated atmospheric CO<sub>2</sub> on production and dynamics in managed and natural biological systems – Brad Ripley (RU)

Project inputs:

- The combined effects of drought and elevated CO<sub>2</sub> on selected Maize cultivars – Tebadi Bopape (RU)
- Effects of warming on the establishment of an African savanna tree - Matilda Randle (US)
- Elevated CO<sub>2</sub> induced enhancements to growth and water conservation are not exclusive to C3 trees – Sarah Raubenheimer (RU)
- Herbivores and the seedling bottleneck – Nicola Stevens (SAEON)

**09h15::** Overview of: Investigating predictability of seasonal anomalies for societal benefit – Willem Landman (UP)

Project inputs:

- Forecasting Sea Surface Temperature in the Western Cape - Belinda Nhesvure (UCT)
- Sub-seasonal prediction of heat waves over southern Africa and the associated atmospheric circulation characteristics - Christien Engelbrecht (ARC)

**09h45:** Overview of: Human well-being and environmental degradation in coupled social-ecological systems – the impact of changes in seasonality – Barend Erasmus

**10h00:** Overview of : How will changing seasonality affect biodiversity and water provisioning in the Greater Cape Floristic Region? – Vernon Visser (UCT)

Project inputs:

- Investigating plant hydraulic responses to drought in Restionaceae – Kayla Atkins (UCT)
- Artificial Neural Networks in Precipitation-Stream Flow Modelling – Matthew De Vries and Romelon Chetty(UCT)
- Understanding impacts of urban landscape structure on bird communities through occupancy modelling - Jessleena Suri (UCT)
- The impacts of drought, grazing and seasonal precipitation changes on the diversity of ants and spiders in the Savanna and Fynbos of South Africa - Tshikambu Ratshibvumo (U Venda)

- The influence of rainfall seasonality on post-fire vegetation dynamics in Fynbos and Renosterveld - Justin van Blerk (UCT)

#### **11h00 – 11h20 Tea**

**11h20:** Overview of: Changes in the annual cycle over South Africa and ocean hotspots – Chris Reason (UCT).

##### Project inputs:

- The influence of the Seychelles-Chagos Thermocline Ridge - Wanjiru Thoithi (UCT)
- Numerical modelling of the Angola Low and the Botswana High during two El Niño summers - Diedericks Morake (UCT)

**12h00-12h45:** Overview of: The role of phytoplankton in mediating global climate through stratus cloud albedo in the coupled ocean – atmosphere of the Benguela System – Sandy Thomalla (CSIR)

- Dust deposition and seawater fertilization in the Benguela current - Monray Belelie (NWU)
- Seasonal characteristics of phytoplankton bloom phenology in the northern Benguela upwelling system - Lebogang Matlakala (UCT)
- Investigating the sensitivity of southern Africa climate to simulated aerosol particle characteristics – Rebecca Garland (CSIR)

**12h45 – Observations and closing remarks**

- Professor Guy Midgley