

# THE 2<sup>ND</sup> INTERNATIONAL CONFERENCE ON ADVANCES IN PLANT SCIENCE (ICAPS)

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The second International Conference on Advances in Plant Sciences in November (2014) was hosted by the Sivaram Research Foundation in association with the Mara University of Technology in Sarawak, Malaysia. The aim of the conference was to showcase advances in botanical research and the conservation of plants on a local and global scale. The scientific programme included 23 sessions on topics such as mycology and plant pathology, cytogenetics and plant breeding, and plant morphogenesis. Both oral and poster presentations were grouped into these technical sessions. Five researchers were also invited to give plenary lectures.

Profs Mansir Yusuf of Nigeria and Ayyanadar Arunachalam of India delivered excellent talks. Prof Yusuf lectured on the use of RNA inference technology as a tool for crop improvement and breeding under biotic stress and Prof Arunachalam on biodiversity conservation and climate change.

The conference was attended by one Centre of Excellence in Tree Health Biotechnology (CTHB) student, Waafeka Vardien of Stellenbosch University. Waafeka presented a talk in the Plant Physiology and Biochemistry session, titled "*Nodules from fynbos legume *Virgiliadivariata* have high functional plasticity under variable phosphorus (P) supply levels*". The talk was based on her PhD research (supervised by core team members Profs Alex Valentine and Emma Steenkamp) in which she investigated the underlying mechanisms that nodules from nutrient-poor ecosystems use to maintain functioning in phosphorus poor soils. Results from her research indicate that *V. divaricata* can experience P-stress during prolonged exposure to low P supply and that nodules show a distinct response and adaptation to P deficiency. Under low P conditions, plants experienced reduced biomass and nodule production. Although biological N<sub>2</sub> fixation (BNF) declined during P deficiency, the nodules maintained BNF efficiency per nodule mass and unit P. In addition, P-stressed nodules showed homogenous P tissue localisation and increased iron and APase levels that are thought to contribute to P recycling.

The conference was an excellent opportunity to meet scientists focusing on plant research from across the world and to establish new contacts for future collaborations.

*Further reading:*

Vardien W, Mesjasz-Przybylowicz J, Przybylowicz WJ, Wang Y, Steenkamp ET, Valentine AJ. (2014). Nodules from Fynbos legume *Virgilia divaricata* have high functional plasticity under variable P supply levels. *Journal of Plant Physiology* 171: 1731-1739.