OSMOND MLONYENI BECOMES THE FIRST CANDIDATE AT FABI TO DEFEND HIS PHD THESIS PUBLICALLY

In a first for FABI, Osmond Mlonyeni publically defended his PhD thesis on 23 May, marking a shift away from the Institute's traditional prestige seminars. Previously, PhD candidates presented their prestige seminars first at the Institute before undergoing a closed oral defence with their external examiners.

Osmond presented a summary of his thesis titled "Characterisation of the genetic variability in the *Sirex-Amylostereum-Deladenus* symbioses" before fielding questions from his external examiners, Dr Helen Nahrung of the University of the Sunshine Coast in Australia and Professor Brett Hurley of the University of Pretoria. Also in the audience were his family, friends and colleagues.

Proff Bernard Slippers, Brenda Wingfield, Jaco Greeff and Mike Wingfield were Osmond's supervisors. Using molecular and genomics tools, Osmond investigated genetic variability of the nematode *Deladenus siricidicola*, the biological control agent of *Sirex noctilio*, and its fungal symbiont *Amylostereum areolatum*.

A single strain of *D. siricidicola* is widely used in the Southern Hemisphere against different populations of the Sirex woodwasp and the fungus it vectors. Developing a biocontrol programme specific to the populations of *Sirex* and the fungal strains in each area would therefore significantly improve the efficacy of the programme.

By comparing different *D. siricidicola* strains from South Africa, Chile and Canada, Osmond found that there was variation in the ability of different strains to convert to the infective form. This variation, he found, could be exploited to tailor biological control programmes for specific regions. He also found that there were nine strains of *A. areolatum* in South Africa, one of which was unique to the Western Cape and KwaZulu-Natal provinces. This, he said, possibly suggested two different introductions of *S. noctilio* to South Africa.

Prof. Slippers commended Osmond for his leadership, numerous awards and representing FABI on various international platforms. He congratulated Osmond on completing his degree and being an “established researcher” who has published his research widely.