

CANADIAN FOREST SERVICE SCIENTIST HELPS GROW CAPACITY IN CHEMICAL ECOLOGY AT FABI

Dr Jeremy Allison of the Canadian Forest Service (CFS) visited FABI between 3 and 23 November to work on joint forest entomology chemical ecology projects. This collaboration started in 2014 with a visit in November to establish factorial field exclusion trials with *Sirex noctilio*. These trials were designed to elucidate the factors that explain why the consequences of *Sirex noctilio* invasion of North American pine forests differ from those associated with the invasion of plantation forests in the southern hemisphere. This collaboration has expanded to include new projects examining: 1) the role of visual and olfactory stimuli in mate and host location of *S. noctilio*; 2) characterization of the reproductive biology of *S. noctilio*; and 3) the chemical ecology of South African Cerambycidae.

UP collaborators on these projects include Professors Bernard Slippers, Mike Wingfield and Drs Brett Hurley and Marc Bouwer at FABI as well as Prof Egmont Rohwer at the Department of Chemistry. As part of the collaboration Dr Bouwer visited CFS labs in July-August 2015. Future plans involve co-advised PhD students and postdoctoral researchers on these and other projects.



Left: Jeremy Allison setting up an experiment to test the effect of competitors on *Sirex* development. Right: Jeremy Allison (far left) with Natsumi Kanzaki (Japan), Bernard Slippers, Ludwig Eksteen, Katrin Fitza, Tabata Masanobu (Japan) and Osmond Mlonyeni. The two Japanese collaborators were visiting at the same time to also work on joint projects on *Sirex*.

Chemical ecology is the study of the role of chemicals in the interactions among and with species. As such it has immense potential to enhance our understanding of the world around us and provide bio-rational tools to mitigate the harmful effects of pest species. Other chemical ecology work at UP includes an extensive focus on bees, driven by Profs Robin Crewe and

Christian Pirk, pest management led by Dr Kirsten Kruger and dung beetles by Dr Catherine Sole, amongst others.

Dr Almuth Hammerbacher has also recently joined FABI from the Max Planck Institute, and will work on aspects of the chemical ecology of plant-insect-fungal interactions. Ongoing discussions are focused on the potential for the development of a Centre of Chemical Ecology at UP with a focus on pest management in South Africa and Africa.