UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

FABI

Position for MSc candidate:
Detection of *Euproctis terminalis* outbreaks in pine plantations in South Africa using sentinel 2 images

The brown tail moth, *Euproctis terminalis*, is native to South Africa and has expanded its host range to feed on *Pinus* species planted for timber and timber products in South Africa. Intermittent outbreaks of *Euproctis* has been documented since 1929. The larvae feed on the pine needles and can cause complete defoliation of pine plantations. Repeated defoliation events can result in the death of trees. To obtain a better understanding of the frequency of the outbreaks, the project aims to develop a remote sensing technique to detect the outbreaks of *Euproctis* in South African pine plantations using Sentinel 2 satellite imaging. The damage detection method can be applied to historical data to provide insight into the frequency of outbreaks and to predict future outbreaks in light of climate change.
The position will include both field work and computer data analysis, and provide an opportunity to develop and apply remote sensing skills. The project forms part of the remote sensing satellite laboratory in collaboration with the University of Ghent and industry partners. FABI and the satellite laboratory bring together world class expertise in tree health biotechnology and remote sensing to create a unique multidisciplinary research environment developing next-generation research leaders in precision pest management and sustainability.
Required qualifications: BSc honours or equivalent degree, in Entomology, Ecology, Plant Pathology, or a related field; demonstrated analytical/statistical abilities and writing skills; experience in computer science or remote sensing will be advantageous; ability to work independently and as part of a team; good communication skills.
Where: The successful candidate will be based at the Forestry and Agricultural Biotechnology Institute (FABI, www.fabinet.up.ac.za) and registered in the Department of Zoology and Entomology, at the University of Pretoria.

Compensation: A full scholarship is offered for a two-year period.

Application Process: Email the following to Dr Michelle Schröder (michelle.schroder@fabi.up.ac.za): (1) A cover letter that includes your research interests (2) CV, including contact information for three references combined into one document.
Recruitment will be an ongoing process until a suitable candidate is identified.