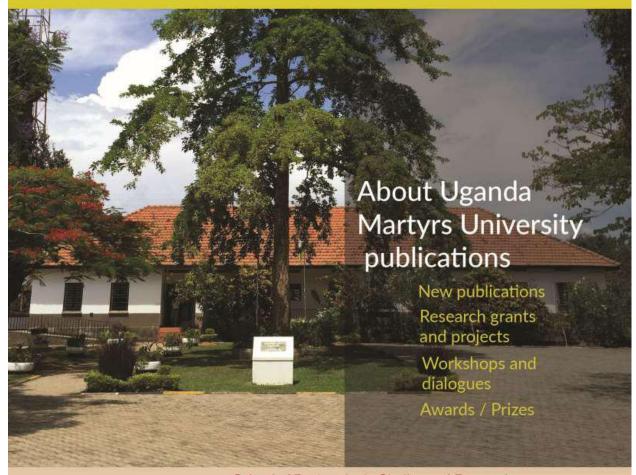


## NEWSLETTER

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School of Postgraduate Studies and Research

Uganda Marcyrs University

Established in 1993 to serve the Church and the Nation Chartered by the Government of Uganda We evaluated the potential of using *Pheidole megacephala* as a biological control agent against the coffee twig borer *Xylosandrus compactus* (Eichhoff), an economically important pest of Robusta coffee in Uganda. Upon observing that *P. megacephala* was common in coffee fields infested by *X. compactus*, we tested hypotheses that (1) *P. megacephala* feeds on all stages of *X. compactus*, (2) *P. megacephala* can enter galleries of *X. compactus* inside coffee twigs in search for the prey and (3) *P. megacephala*'s presence on infested twigs reduces populations of *X. compactus* in the galleries. In a Petri dish bioassay over 24 h, we found that *P. megacephala* preyed upon all stages of *X. compactus* without indication of preference. We caged up *X. compactus* infested twigs with *P. megacephala* in a plastic container over 48 h and found that the predator was unable to enter the galleries. Lastly, we caged up intact *X. compactus* infested coffee twigs in the field with muslin cloth sleeves for one month and found that *P. megacephala* reduced the population of *X. compactus* per twig by almost 22-fold compared to the untreated control. We concluded that *P. megacephala* is an indiscriminate predator of all *X. compactus* stages, and, though unable to enter *X. compactus* galleries, the predator may reduce *X. compactus* population on infested twigs. Exploitation of *P. megacephala* in the biological control of *X. compactus* on coffee and other crops would require additional studies on how to enhance presence of the predator on the infested crop.