



DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

WEBINAR

**The Institute for Systems Science invites you
to its seminar on Wednesday, 09 December 2020**

DATE: Wednesday, 09 December 2020
TIME: 12:00 – 13:00
PLATFORM: MS Teams: [Click here to join the meeting](#)

Presenter: **Dr Tlou Raphela**
(Post-Doctoral Fellow, Durban University of Technology)

Title: *Effects of Lantana Camara on small mammal's biodiversity in Groenkloof Nature Reserve, South Africa.*

Abstract

Invasive alien plant species such as *Lantana camara* have negative impacts on biodiversity, ecosystem services and human well-being. Ecological impacts of these species are relatively well understood, but the impacts on small mammals are poorly documented, in spite of the fact that small mammals play a major ecological role in areas such as nutrient cycling. We investigated the impact of *L. camara* on small mammal's population of the Groenkloof Nature Reserve (GNR), an urban protected area in South Africa. Here we quantified the impacts of *L. camara* on common biodiversity indicators (species richness, abundance and diversity of small mammals). Data were collected around 6 treatments with varying degrees of *L. camara* invasion density and time from previous clearing, as well as a control area with no history of invasion. Small mammal trapping was done using polyvinyl chloride (PVC) live traps (similar to the commonly used Shearman brand) and a mark, capture, identify and release technique. The results showed the highest species richness and diversity in the control area followed by the treatment that has been cleared for less than two years. This finding suggests that small mammals in our study avoided invaded areas. This tells us that invaded areas are not suitable for the survival of small mammals. Again we found that Small mammal's species richness and diversity decreased with the increase in invasion period. This tells us that the more time *L. camara* is left to establish the more disturbance it will cause to the habitat of small mammals. Furthermore, the area that has been cleared of *L.camara* showed an increase in small mammal's species richness and diversity suggesting that clearing of this plant helps in rehabilitation of the ecosystem.

Contact: Sam Nhlathi at samukelisiwen@dut.ac.za, 031 373 6733 or kevind@dut.ac.za

