

## **Survey and DNA barcoding of vermicomposting earthworms**

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The potential economic benefits of vermicomposting remain underexploited in South Africa. From a bio-economic perspective, local research has helped establish that vermicomposting is a useful low cost and low maintenance technology that could help improve agricultural and waste management practices. Few local studies, however, have made use of DNA technology to investigate the earthworm species used for vermicomposting in South Africa. Preliminary evidence reveals widespread misidentification of the species under exploitation (by the earthworm farmers), the occurrence of mix colonies and potential undescribed species of earthworms and a relatively low genetic diversity among the select populations investigated to date.

Typically, earthworms used in vermicomposting locally are introduced species of European origins. Even though they present limited invasiveness potential, their occurrence, distribution and abundance still need to be established. Moreover, the potential presence of cryptic species among these earthworms makes it crucial to conduct further DNA research in this sector in order to conclusively establish species occurrence, abundance, distribution and genetic diversity.