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UCT PhD graduate sniffs out the secrets of cycad scent and pollination

University of Cape Town doctoral student Terence Suinyuy's thesis – *The role of cone volatiles and thermogenesis in the pollination of Encephalartos cycads with particular reference to E. villosus* – examines the role of cone odours in mediating the behaviour of insects that pollinate cycads, an ancient group of plants that is well represented in South Africa.

By analysing the chemical composition of cone odours and testing insect responses in the laboratory and field, Suinyuy shows that cone odours actively attract pollinating insects. The evidence, starting from characterisation of the cone odour, to confirming insect physiological and behavioral responses in the laboratory and trapping pollinators in the field, is the strongest yet obtained for a cycad pollinator interaction.

The research also reveals some unexpected geographical patterns in odour composition, suggesting that cycad cone odours are more variable than previously thought. This is supported by a comprehensive data set compiled for 19 South African cycads, which shows divergence in cone odours even between closely related species.

Please note: Information in this release is based on the supervisor's citation for the PhD thesis. UCT advises journalists to obtain a copy of the thesis and/or interview the PhD graduate to verify and expand on this information.

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