

Radio devices to save rare species from poachers

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Cycad by Glen Fleishman. Credit: Glen Fleishman (Creative Commons licence)

A joint project between conservationists and electronics experts at the University of Kent has developed miniature radio devices in tamper-proof casings to protect rare species from poachers.

The University of Kent is now working in association with the South African National Biodiversity Institute, where this technology has now been proposed as part of [conservation planning](#).

The illegal wildlife trade is fourth only to narcotics, [human trafficking](#) and counterfeiting, with an estimated value around \$20 billion per year and the United Nations recognising environmental crime as requiring greater response by governments.

The project team have developed and tested Radio Frequency Identification (RFID) tags on endangered cycads, a group of plants that predate the Jurassic era. Nearly 40% are threatened with extinction and are vulnerable to theft due to their rarity, durability and looks. Some have been so heavily poached that populations have crashed from 10,000 to less than 400 individuals.

The tag is placed within a tamper-proof case that can't be moved without destroying the transponder chip within the tag. The team proposed that the tags could be used along with satellite or cellular networks to relay immediate alerts to ranger stations as soon as a plant goes missing, with drones deployed for observation. Secondary RFID tags could also be embedded into plants to help identify any that are stolen and later recovered.

The project was led by Professor John Batchelor, Professor of Antenna Technology in the School of Electronics and Digital Arts, and Dr David Roberts, Reader in Biodiversity Conservation in the Durrell Institute of Conservation and Ecology in the School of Anthropology and Conservation.

More information: kar.kent.ac.uk/58968/1/RFID%20Cycad%20Conservation.pdf

Provided by University of Kent

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