An endemic mammal has been re-discovered in the eastern Kimberley, almost a century after its last recorded sighting.

The enigmatic and poorly understood scaly-tailed possum (*Wyulda squamicaudata*) was last seen in 1917.

Now a cane toad research team from Monash University have rediscovered it in the east Kimberley.

During an ongoing study of the impacts of cane toad invasion on native fauna in WA, the team set up remote camera traps at El Questro Station.

Originally looking for the northern quoll (*Dasyurus hallucatus*), a species at high risk from the cane toad invasion, the team were surprised to see the rare scaly tailed possum in the resulting images.

Monash University Zoologist Sean Doody says he was shocked at the find.

"I was stunned, I'm familiar with the mammal fauna of northern Australia, and knew that there were no brushtail possums with bare tails," Dr Doody says.

"This left either the scaly tailed possum or the rock ringtail, and the amount of hair on the base of the tail, easily seen in the photos, confirmed it was the scaly tailed possum."

Three of the cameras set up at Emma Gorge produced 20 photographs of at least four individual possums in 1,037 trap days.

The result was one possum every 52 trap days.

The cameras were within 400m of each other on both sides of the gorge and close to the tourist trail. Possums were exclusively nocturnal.

The finding has also extended the habitat range of the possum by some 300-400km from known populations in the west Kimberley.

There have been concerns that the first record in 1917 was an error, if so, this represents the first discovery of the species in the eastern Kimberley.

Dr Doody says the species may have remained elusive due to two main factors.

"It's a nocturnal mammal occupying steep escarpments dissected by gorges, and there are not enough biologists surveying the Kimberley," he says.

Genetic analysis has confirmed that although the population is isolated, it is the same species as the west Kimberley possum.

The work has helped fill the knowledge gap about the mammals in tropical Australia and the study has been published in CSIRO's *Australian Mammalogy*.

The population at Emma Gorge currently receives protection from its location in the El Questro Wilderness Park.
Dr Doody says the area will become Federal property in 2015, which should secure this important population.

Provided by Monash University


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