Taking the fun out of fungi for bandicoots

Caltiin Fitzsimmons Environment reporter

When Annabel Ellis tells people her PhD project is training bandicoots not to eat truffles, they usually react with surprise and amusement

"They find it funny at first, but when I explain the serious purpose of it and the plight of the bandicoots, they're always very supportive," Ellis said.

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The native marsupials are sniffing out and gorging themselves on thousands of dollars of black, or French, truffles a night, causing a headache for farmers in the emerging Australian truffle industry. The omnivorous foraging

ging Australian truffle industry.
The omnivorous foraging creatures normally move quickly around the landscape nibbling insects and a range of native mush-rooms and truffles. But the unlikely gourmands have taken a particular liking to black truffles of the French variety, large underground edible fungi that sell for \$2500-\$3000 a kilogram.

Camera footage shows that when bandicoots find a truffle patch, they become positively gluttonous. "Bandicoots are quite small; their stomach is quite small," Elis said. "I think they're gorging themselves on truffles."



A long-nosed bandlcoot.

Given most bandicoot species are threatened or endangered, any project that helps them avoid conflict with humans will boost their odds of survival. Ellis researched the behaviour

Ellis researched the behaviour of long-nosed bandicoots, found throughout eastern Australia, at the Terra Preta truffle farm near Braidwood in southern NSW.

Braidwood in southern NSW.
Under the supervision of Professor Peter Banks, an expert in
wildlife conservation biology, Ellis
completed the practical phase of
her research last week. This involved months of injecting soil with
truffle oil some distance away from
a truffle patch, and observing how
the bandicoots responded.

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The theory was that the bandicoots would learn that the smell of truffles did not lead to the reward of food, allowing farmers to protect thousands of dollars worth

of crops with a single \$50 bottle of truffle oil. "We had these little patches where there were odour points and the bandicoots would think that smells good, and they would dig there and get nothing," Banks said. "Then Annabel would move it to new spots ... and that was the training process to teach them that it's not rewarding."

Last year Terra Preta Truffles

Last year Terra Preta Truffles lost about \$20,000 worth of truffles over the season, but this year only about \$1000 worth. Farmer Kate Marshall said the

Farmer Kate Marshall said the bandicoots clearly had good taste, and the family was glad to have them around the farm as it was a sign of a healthy ecosystem. However, ahe conceded they had hurt the bottom line last year, so ahe was pleased to find what seemed to be a win-win solution. "We do welcome them. It's really lovely, and it's not often you get to see these creatives making.

"We do welcome them. It's really lovely, and it's not often you get to see these creatures making a comeback," Marshall said. "It fits our ethos to have them, but it also fits our ethos to have Annabel and Peter fix the problem."

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Ellis said bandicoots played an important role in the environment.
"Their digging serates the soil, they're spreading the fungus, and by moving soil a lot they're reducing the leaf litter and fire load."



Annabel Ellis and Peter Banks checking a camera as farmer Keith Marshall searches for truffles with dog Aldo, Photo-Alex Filinghausen

