

RESEARCH

Running on roofs, dining in gardens ... we may not think of possums as friends but Karolina Petrovic reveals there's another side to these furry 'pests', writes **ELIZA ADAMTHWAITE**.

A POLISH academic is determined to change the bad reputation possums have acquired in Australia. Karolina Petrovic, from Warsaw, has spent the past five years studying possums at Charles Sturt University's Institute for Land, Water and Society at Thurgoona, and at the Australian National University in Canberra.

She returned to her homeland three weeks ago but is determined to return to Australia and New Zealand to expand her research and expects to submit her thesis in the next few months.

"I'm going back to Poland but this is a temporary station for me because I want to attend my graduation but also to spread my knowledge, get involved in conservation and gather more experience on the ground," she says. "I was always interested in possums because they have a really special food strategy and so I contacted



Possums are highly adaptable.

BELOW: Karolina Petrovic in the field ... she has been studying possums for five years.

SURVIVAL TAIL

people around the world and found my supervisor, associate professor David Watson, who is considered one of the biggest names in this kind of research."

When Ms Petrovic first arrived, she was determined to learn more about two of Australia's greatest native pests — possums, particularly the common brushtail, and mistletoe.

"I ended up studying two very controversial species," she laughs.

"I treated possums as spy control agents (to study mistletoe) because it is considered a pest in Australia.

"But possums are considered pests too because they eat garden plants and people's apples, dog food and run on people's roofs and make lots of noise."

While everyone Ms Petrovic spoke to could tell her a story about possums being pests, she decided there had to be more to the furry creatures she found so fascinating.

"When you talk to Australians everyone has a possum story and usually it's a negative story," she says.

"But there are also very interesting stories from migrants at the Bonnegilla migrant centre hearing strange noises on the roof, as part of their first impressions (of Australia).

"Then you hear all these strange stories about the cleverness and cheekiness of possums."

Ms Petrovic says while the little marsupials have developed a bad reputation, she wants to reveal another side.



“... everyone has a possum story and usually it's a negative story.”

"For me, they are similar to Australians because they are highly resilient, highly adaptable and evolutionary wizards," she says.

"I also really feel there is a connection to the past — in Aboriginal culture, possums were highly praised."

Ms Petrovic has been working with the Wildlife Information, Rescue and Education Service (WIREs) where she could see people actually caring about possums.

"There's a polarised perception but because they're a native species we have to learn to live with them," she says.

"In order to live in harmony with them, we need to establish nesting

boxes, protect apple trees or decide some trees can be shared with the little creatures."

Ms Petrovic's research required plenty of field work, where she used spotlighting, radio tracking and analysing faeces for plant scraps and to establish the nutritional value of their food.

She is fascinated by possums' migration from the bush to urban areas and their ability to cope with the change in digestion demands.

"It was impossible to perform live observations of animals' foraging activity since they were observer-shy," she says.

"However, possum tree presence proved to be a good indicator of their dietary preferences.

"So the outcome was, just as it is for the majority of you, that hungry roadside possums choose fast food over healthier, but hard to get, options for dinner."

Ms Petrovic's research has been explained in a video on ABC TV's *Catalyst* website, as part of the program's Sell Your Science promotion.

"They move from the country, dominated by hard-to-digest and toxic eucalypts, to the city and discover the glories of fast food from your bins and gardens," she says, on the video.

"In my research I focused on those few brave possums still surviving in the bush. I want to know what they eat, when and why."

She explains her motivation, methods and discoveries to the camera.

Ms Petrovic is intrigued with a native animal that has really found a way to more than survive in modern, urban Australia.

"The common brushtail possum is perhaps the most widespread of all Australian mammals due to its highly adaptable nature to different types of habitat, such as rainforests, woodland, dry eucalypt forest, pine plantations, semi-arid areas and even parks and gardens in urban areas," she says.

"Due to their diet flexibility and ability to exploit the most abundant plant groups, possums represent evolutionary winners by being the most adaptable of any Australian marsupials since the arrival of Europeans.

"They are thriving in New Zealand, where they have reached a pest status."

Ms Petrovic would like to extend her research to New Zealand to look at how possums have become a major pest and efforts to eradicate them.

She says the past five years have been challenging but very rewarding.

"I especially enjoyed the field work when I felt like I was closer to nature," she says.

"Since I come from a different continent with totally different plants and animals, it was like starting from scratch.

"Everything seemed so amazing. But now I feel like I really connect and understand the relationships.

"If I took a possum back to Poland, I'm sure they would do just fine."