

# Sniffing out the enemy—scent may be stoats' Achilles heel

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Credit: University of Auckland

Odour could be the next weapon in the arsenal against some of New Zealand's worst predators including the stoat, the major killer of young kiwi chicks in New Zealand's native forests.

Like many mammals, [stoats](#) have an "olfactory communication system" which detects threats in their environment, helping them increase their chance of survival.

A new study by researchers at the University of Auckland and Landcare Research tested the response of stoats to the scent of two of their dominant enemies - cats and ferrets.

In previous trials by doctoral student Patrick Garvey of the School of Biological Sciences, stoats had exhibited strong fear and avoidance behaviour when detecting the physical presence of more [dominant species](#).

The surprise findings in this latest study were that, far from being deterred, stoats were attracted by the scent of these larger [predators](#) and keen to investigate when the smell of a cat or ferret was detected.

As well, food placed in locations where the scent of a cat or a ferret was present was the first stop for stoats, rather than being an area they avoided. Areas without the scent were their second choice.

While the food was consumed faster in areas with a dominant predator [scent](#), overall the findings were a surprise.

"We don't know for sure why stoats consume food at the 'high risk' area first, but stoats may actively scavenge the remains of prey left over by more dominant predators or it could be a fortuitous discovery of food when investigating a threat," Mr Garvey says.

The ability of stoats and many other mammals to "eavesdrop" on the olfactory communication system of larger predators could be the beginning of the search to develop odour "lures" in pest trapping operations.

"By hijacking the olfactory communication systems of predators such as stoats, we may be able to exploit an invasive predator's most instinctive behaviour, which is to inform themselves about their environment through their sense of smell," he says.

Provided by University of Auckland

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