

## Does New Zealand have a hope against invasive ants?

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Ants have proved very successful at invading New Zealand in recent times. Excellent progress in the Pacific by the Ministry of Agriculture shows that careful management of pre-border risks can dramatically reduce ant interception rates. Despite this, some invidious species such as black crazy ant *Paratrechina longicornis*, tropical fire ant *Solenopsis geminata* and red imported fire ant *Solenopsis invicta* have breached our borders and formal surveillance systems, triggering expensive incursion responses. Current surveillance methods, such as those used in the annual National Invasive Ant Surveillance programme, may not be sufficient or practical with increasing trade projections. Fortunately post-border ant incursions, such as red imported fire ant, have been discovered by the public early enough to enable successful eradication, but this is less than ideal. How can we further improve our game against this onslaught? Perhaps, identification and use of ant female sex pheromones will create new opportunities for detection with much greater efficiency than other sampling systems, as has happened for Lepidoptera and a number of other insects at landscape scale. Other useful approaches in the shorter-term, could include a study of past examples of ant eradication programmes. So far, we have examined 52 ant eradication programmes in seven countries in order to identify critical factors leading to the success or failure against 11 species. About half of these programmes have declared eradication (22), or are likely to have been successful (4). Most programmes have lasted under seven years, but a few required longer, illustrating the need for long-term commitment in order to prevail against ants.

