

Beware of the enemy within

November 17 2010



There is new evidence that Australia's internal quarantine restrictions for insect pests play an important role in protecting the nation's agricultural industries.

Credit: CSIRO

Evidence supporting Australia's internal quarantine restrictions designed to stop the spread of insect pests, has been published in the respected scientific journal, *Nature Communications*.

Led by CSIRO Ecosystem Sciences' Dr. Dean Paini, an international group of scientists at the CRC for National Plant Biosecurity used a type of artificial intelligence (or machine learning) to determine the top 100 [insect pests](#) most likely to establish in all 48 contiguous states of the US, and how many had not yet established in each of those states.

They then asked: 'Of these absent species, how many are already found somewhere else in the US?'

The answer was that for most states, all the species absent from that state

are found somewhere else in the US – often in a neighbouring state.

"Thus the immediate threat from invasive insect pests to individual US states is from within the US itself," Dr Paini said.

"While most countries, including [Australia](#), place great emphasis on border protection through national and international regulation, the results from this US research show that biosecurity policy needs to be broader than that.

"In any large country, such as Australia, biosecurity must also look at the risks posed by pests already established somewhere within their borders and impose appropriate restrictions to prevent their spread.

"So, if, when moving between states, or even between some geographic areas, Australian travellers are required to dispose of items such as fruit, vegetables or pot plants, they need to remember this is an important part of our biosecurity."

Provided by CSIRO

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