

A hit love song for toads

July 13 2017

James Cook University researchers in Australia say they now know exactly what makes horny cane toads boogie. And the toad tune could help sound the death knell for the pests.

JCU's Ben Muller placed cane toad 'audio traps' with differing characteristics at various sites in the Townsville, Queensland, region.

"We varied the sound they were playing to have different combinations of volume, [frequency](#) and [pulse rate](#)," he said.

The team were particularly interested in attracting reproductive female toads (those carrying eggs).

"A female cane toad may lay upwards of 20,000 eggs per clutch so removing a single female with eggs from the population is more effective for control than removing a single male," said Mr Muller.

He said that male cane toads did not appear to care what variation of volume, frequency and [pulse](#) rate were used, but female toads were much choosier.

"We found we could manipulate the proportion of females, and reproductive females, that we trapped by changing the calls used as lures."

The scientists found that approximately 91% of the females trapped using a loud, [low frequency](#) tone with a high pulse rate were

reproductive.

"We think that low frequency calls indicate to female toads that they are hearing a large-bodied male and the high pulse rate means the male making the call has high energy reserves. These things combine to make them believe they have found a good breeding partner," he said.

Mr Muller said the finding may help suppress toad numbers, but it was not a silver bullet.

"Large-scale eradication of [cane toads](#) from mainland Australia using traps is probably not possible; however, eradication of island populations could be achievable if the trapping regime was correctly designed and implemented," he said.

More information: Benjamin J Muller et al, Success of capture of toads improved by manipulating acoustic characteristics of lures, *Pest Management Science* (2017). [DOI: 10.1002/ps.4629](https://doi.org/10.1002/ps.4629)

Provided by James Cook University

Citation: A hit love song for toads (2017, July 13) retrieved 3 May 2024 from <https://phys.org/news/2017-07-song-toads.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.
