

New study shows kiwi call in perfect harmony

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(Phys.org) —A group of researchers at Victoria University studying the little spotted kiwi are uncovering surprising results about our national bird's behaviour.

Dr Andrew Digby, Dr Ben Bell and Dr Paul Teal have conducted the first ever acoustic study of little spotted <u>kiwi</u>, New Zealand's second rarest kiwi. Over a period of three years, they measured hundreds of calls made by a population of the birds living at the Zealandia sanctuary, in Wellington.

Their research has found that the kiwi, which live in pairs and are



thought to mate for life, call in harmony with each other using a previously unknown form of vocal 'cooperation'.

Dr Digby says the analysis demonstrates that, in contrast to what has previously been thought, size differences between male and female kiwi are not the sole cause of the differences in the frequency, or pitch, of the calls the birds make.

"Instead, male and female kiwi appear to call for different reasons, with male kiwi using their calls for long-range purposes, such as defending their territory from other kiwi, and <u>female birds</u> using calls for close-range purposes, like staying in contact with their partners."

The researchers also discovered that male and female little spotted kiwi can synchronise their calls and have complementary call frequencies, meaning that when they call together they are more effective at repelling intruders. This is the first time such cooperation in frequency and time has been reported in bird 'duets'.

The research has made up the focus of Dr Digby's PhD, which is using kiwi calls as the basis for revealing more about kiwi behaviour and to help provide new tools for their conservation, and has recently been featured in the world's leading ornithological journal, *Ibis*.

He is also investigating whether little spotted kiwi have a call 'signature' which can be used for identifying individuals, and is studying kiwi in different locations to see if unique <u>regional dialects</u> are developing.

"Calls are an important part of kiwi conservation since they provide an inexpensive, efficient and non-invasive way to monitor these mysterious birds," says Dr Digby.

"But, we actually understand very little about why kiwi call, and the calls



of most kiwi species have never been studied, so this research is important for helping us gain a better understanding of one of our national icons."

Provided by Victoria University

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