

Humpback whales change their tune

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New research led by the University of St Andrews reveals that humpback whales can learn new songs while navigating a shared migratory route.

The new research, published in Royal Society's journal *Open Science*

(Wednesday 3 September), focused on the Kermadec Islands in the South Pacific Ocean, a recently discovered migratory stopover for humpback whales. The team of researchers, led by scientists from the School of Biology at the University of St Andrews, found similarities in [whale songs](#) from the Kermadec Islands and whale songs from multiple wintering locations, from New Caledonia to the Cook Islands.

It was already known that whale songs are transmitted eastwards across the South Pacific Ocean, travelling across breeding populations from Australia to French Polynesia in a series of 'revolutions' spanning just three years, passing in waves across the ocean. The new research, in collaboration with the University of Auckland, reveals that migratory convergence appears to facilitate whale song learning as well as transmission of songs east, and potentially cultural convergence.

Dr. Ellen Garland from the University of St Andrews said: "Male humpback whales perform complex, culturally transmitted song displays. Our research has revealed the migration patterns of [humpback whales](#) appear to be written into their songs. We found similarities in songs from the Kermadec Islands and songs from multiple wintering locations.

"While convergence and transmission have been shown within a whale population during migration and on their wintering grounds, song exchange and convergence on a shared migratory route remained elusive."

Dr. Luke Rendell, also from the School of Biology at the University of St Andrews, added: "Song themes from multiple wintering grounds matched songs recorded at the Kermadecs, including a hybrid of two songs, suggesting that multiple humpback whale populations from across the South Pacific are travelling past these islands and song learning may be occurring.

"Our results are consistent with the hypothesis of song learning on a shared migratory route, a mechanism that could drive the eastern transmission of song across the South Pacific."

More information: Clare Owen et al. Migratory convergence facilitates cultural transmission of humpback whale song, *Royal Society Open Science* (2019). [DOI: 10.1098/rsos.190337](https://doi.org/10.1098/rsos.190337)

Provided by University of St Andrews

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