

Scientist warns against shark culling

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Dr Christine Dudgeon (left) and Dr Jennifer Ovenden (right).

A University of Queensland scientist has cautioned against culling sharks because the long term ecological impact cannot be predicted.

School of Biomedical Sciences principal research fellow Dr Jennifer Ovenden is an expert in the role of population, evolutionary and molecular genetics in the management of wild fisheries.

"Managing shark populations is very challenging," she said.

"Like humans, [sharks](#) can live for a very long time and their rate of reproduction is comparatively low.

"We need to be particularly careful about the numbers of sharks harvested, either commercially or by culling, from wild populations.

"While fin fish produce millions of eggs and have the potential to rebuild their populations very quickly following harvesting, sharks are very different.

Dr Ovenden said UQ strengths in shark genomics and digital systems had enabled her research team to determine the abundance of [shark species](#).

"What we can do right now is estimate the number of sharks in Australian waters, but it will be a number of years before we know if the populations are increasing or decreasing," she said.

"Ultimately our research will help determine if the recent increase in [shark attacks](#) in Australia is due to an increase in shark numbers or to an increase in human interaction.

"We use DNA analysis from individual sharks to give estimates of the number of breeding adults. The digital model confirms this, then predicts the number of juveniles and sub-adults.

"Research team member Dr Christine Dudgeon and I have validated this method on leopard sharks on the east coast of Queensland by comparing the estimated number of breeding adults with direct counts of adults in the [population](#)."

Dr Ovenden and PhD student Mr Dean Blower have extended the research to monitor the number of sharks caught commercially for the Australian market.

"We know that sharks are heavily impacted by commercial and

recreational fishing and we're working in close cooperation with New South Wales Fisheries on this project," Dr Ovenden said.

"Over the coming years, our new technology will allow us to accurately monitor any increases or decreases in [shark populations](#).

"But further research is desperately needed if we are to continue using this unique technology to monitor shark numbers on the east coast of Australia."

Provided by University of Queensland

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