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NEWS

## Fishing industry urged to hook into genomic tools

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*Nelson Plant and Food senior scientist Maren Wellenreuther says the use of genomic tools could be a game changer for the fishing industry.*

The fishing industry needs to start using genomic tools to secure its, says a Nelson scientist.

A new study, co-written by Plant and Food senior scientist Dr Maren Wellenreuther, shows the science of genomics is still under-utilised in

the global seafood industry.

Genomics is the study of the genes that control characteristics in organisms.

Wellenreuther said it can help breeders select desirable traits in parents and offspring was well-established in plant and animal breeding programmes.

However, its potential for improving the health and viability of fish stocks remained largely untapped.

“Many fisheries around the world continue to decline, and to get a different result, we need to do something differently,” she said.

“This could be a step change that could reverse of what is currently a very poor outlook-decreasing stocks, increasing demands, let alone fish under pressure from environmental change.”

Wellenreuther said genomic tools could help to improve fish stocks.

“Because we could tailor management more accurately, population by population, area by area.

“Genomics can also improve aquaculture production, because we can find and encourage desirable traits that will help the species to flourish.”

Fishing and aquaculture provide 4.5 billion people with 15 per cent of their animal protein.

Wellenreuther said it was “a pressing question” how the fishing and aquaculture industry was going to cope with a rapidly growing global population.

“Genomics techniques can help domestic fish populations grow faster, track the impact of hatchery releases, develop disease resistance and identify more wild populations suitable for aquaculture.

“[The] tools were expensive in the past, but the costs have recently come down so it’s now feasible to use. If we start now, costs will only further decrease.”

Wellenreuther said the value of using genomic tools and information in breeding fish “does not need to be further proven”.

“Instead, we need immediate efforts to remove structural roadblocks and to integrate genomic-informed methods into management and production practices.”

The study *Harnessing the Power of Genomics to Secure the Future of Seafood* was based on research from fisheries scientists and policy makers in Australia, Europe, North and South America, the western Pacific, South Africa and New Zealand. The paper was published in *Trends in Ecology and Evolution*.

Source: <https://www.stuff.co.nz/business/farming/97220139/fishing-industry-urged-to-hook-into-genomic-tools>

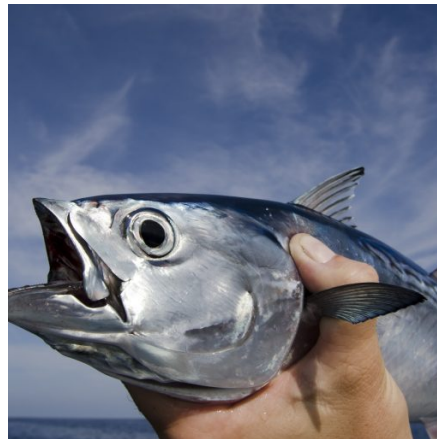
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