

more from stuff



Standing up for young Kiwis in need this winter



All Blacks v Tonga: Ian Foster's new-



Young Wellington women named as rising stars



I had my first experience with unwanted male

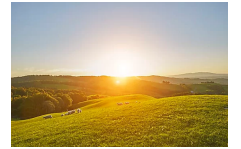
paid content

about this content



Your IQ Is 142 If You Get 15/20 On This General

Parentsdomo Galleries



Red meat can't be beat, here's why

makingmeatbetter.nz

Recommended by

ADVERTISEMENT



Advertise with Stuff

New insights to breed native fish SPONSORED

SPONSORED CONTENT BY PLANT & FOOD RESEARCH · 05:00, Jun 28 2021



SUPPLIED / PLANT & FOOD RESEARCH

Dr Maren Wellenreuther.

As an island nation with a very long coastline and 15 times more sea than land, Aotearoa New Zealand has an amazing resource for producing kaimoana for its people and for export.

However, the only species of fish that is farmed here at the moment is king salmon. It's hoped that by being able to farm native fish such as snapper and trevally as well, consumers will be provided with greater choice of locally-produced seafood.

This is why Dr Maren Wellenreuther is leading a team of scientists at Plant & Food Research's Nelson facility to breed species of fish suitable to farm in our surrounding ocean waters.

Now in its fifth year, the accelerated breeding programme has granted researchers new insights from a breeding perspective, according to Wellenreuther.

"While recreational and commercial fishers are well acquainted with snapper and trevally, not much was known from a breeding perspective. The first thing we did was bring fish into our facility and get to know the really basic stuff about them.



ADVERTISEMENT

*Advertise with Stuff*

"What temperature do they need? What do they need to reproduce and thrive?"

With a strong background in fish biology, ecology and genetics, Wellenreuther says she has been able to learn a lot about how to run a breeding programme from her colleagues since joining the team.

"Scientists at Plant & Food Research have huge knowledge when it comes to plant breeding -such as apple, kiwifruit, and pear.

"Because I was new to breeding but knew all about fish, it was a perfect marriage bringing those skills together."

The team is especially focused on the aim of 'future-proofing' species against disease and more general threats such as climate change.



SUPPLIED / PLANT & FOOD RESEARCH

Baby snapper.

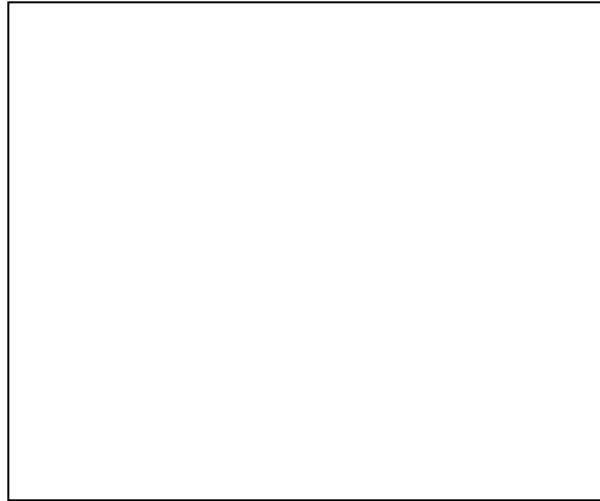
"Improved growth rate is our main goal, but we are also trying to select them for hardiness and for temperature tolerance."

With much of the available coastal space for aquaculture already being used for mussels, oysters and salmon, it's likely that new species will be farmed further out to sea, in what's known as ocean open aquaculture.

As part of their broader aquaculture research programme, Plant & Food Research is developing technology that will allow these farms to be mobile, moving around the ocean to deliver optimal temperatures for their fish.

Wellenreuther says while breeding programmes usually take a long time to show progress – snapper take 3 years to grow to the age where they can reproduce, up to 4 years for trevally – improvements are already being seen in the latest generations of fish spawned.

ADVERTISEMENT



Advertise with Stuff

In the wild snapper, out of 600 fish we had 70 mortalities, but with the selectively-bred snapper we had only one.



SUPPLIED / PLANT & FOOD RESEARCH

Plant & Food Research Nelson.

Compared to other animals, and even plants, breeding fish creates its own challenges. With hundreds of fish in a tank, it's harder to tell the mother and father of any given snapper, so DNA testing is done.

This not only helps to establish which parents produce faster growing offspring and other desirable traits, but allows the scientists to avoid inbreeding in subsequent generations.

In addition to DNA testing, the breeding team have been developing new methods of identifying and measuring individual fish. It's the same sort of facial recognition technology used to unlock smartphones, but a lot more challenging when the subjects are fast-moving, underwater, and almost identical to the untrained eye.

"The possibilities are exciting, but only if we can take our research and make it real. That means it's really important to us to work with Māori and the industry to identify new aquaculture opportunities that create economic growth and new employment opportunities that are sustainable in the long term. "

Wellenreuther hopes this programme will not only result in adding snapper and trevally to the species already being farmed successfully in New Zealand, but will also develop a 'toolkit of knowledge' that can be rolled out to other species in the future.

Learn more at plantandfood.co.nz.

Sponsored content

more from stuff



Trusted, local journalism Ad

Staying informed has never been so important. Subscribe to your local newspaper today.

promoted

News delivered to home Ad

Staying informed has never been so important. Subscribe to your local newspaper today.

promoted



GREAT RATES FROM YOUR MATES

POWER BULK FUEL TELCO INSURANCE



paid content

paid content

[about this content](#)



Hearing Aids: Change is Coming for Seniors in New Zealand



25 Wrestlers Who Passed Away Too Soon
New Arena



[Pics] Royal Family Confirms Unfortunate News
xfreehub



Most Paused Movie Scenes Of All Time

Gazillions

44 Vintage Photos: Not Banned

History Daily

more from stuff



Spark – small business champions



Filming intimate scenes can be psychologically traumatising, says Jennifer Ward-Lealand

paid content

[about this content](#)

See The Price List For

[Pics] Always Place A Bag On

Your IQ Is 142 If You Get 15/20

Most Hilarious Photoshop Edits Are Back!

Parentsdome Galleries

9 Out of 10 Fail This Music Quiz, Can You Pass?

TooCool2BeTrue

ADVERTISEMENT

KitchenAid

DISCOVER NOW



Advertise with Stuff

ADVERTISEMENT



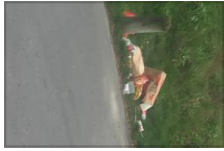
Advertise with Stuff

most popular

- 1 [Top girls' school teacher investigated for sexual relationship with student](#)
- 2 [Swim caps for thick, curly hair not allowed at Tokyo Olympics](#)
- 3 ['Is it a wedding day or a nightmare?': Bride recalls helicopter crash](#)

- 5 [How an Indian restaurant launched out of a 1990s fish and chip shop in Dunedin, and became an institution](#)
- 6 [Quiz: Morning trivia challenge: July 4, 2021](#)
- 7 [Cheesed off – the price of a 1kg block of tasty cheese is now out of reach for some](#)
- 8 [Kiwi lawyer Larissa Trownson stars on racy Netflix dating show 'Too Hot To Handle'](#)
- 9 [All Blacks vs Tonga: Will Jordan bags five as New Zealand run up the ton](#)
- 10 [How to stay warm, with science](#)

your community

Rubbish again.

The filthy people are at it again. Just watched as a car drew up and added to the pile in the invisible rubbish bin. Have snapped and sent. I cannot do any more or pick up any more. But wait! I could get one bag full and take it into the council offices. Yes! Ok, I'm

Mayor elections

Phil Mauger for mayor.....Good bye Lianne Dalziel .We have the chance to put someone in that will do stuff and not hide away and just collect their pay cheque

Need someone to clean our spouting. Have ladders here.

Need someone to clean our spouting. Have ladders here

Parking fees going up in Christchurch

The Christchurch City Council, as part of its 10-year budget, the long-term plan, last week confirmed on-street parking in the central city will increase from \$3.10 an hour to \$4.50 – a 45 per cent increase. The cost to park at the council's Lichfield St car park building will also rise from \$2.80 an hour to \$4 – a 43 per

[Crime & Safety updates](#)

[Find out more](#)



Smart buying? Yes it is!

12 Julian Street, Redwoodtown, Marlborough



Campbell Gill

Licensed under the REAA 2008

- [Neighbourly](#) | [Travel Bookings](#) | [Play Stuff](#) | [Stuff Coupons](#)
- [Death Notices](#) | [Stuff Events](#) | [Advertising](#) | [Careers](#)
- [Privacy Policy](#) | [Cookies Policy](#) | [Terms & Conditions](#)
- [Editorial Code](#) | [Contact Us](#)

Breaking news?

Send your photos, videos and tip-offs to newstips@stuff.co.nz, or call us on 0800 697 8833



© 2021 Stuff Limited

