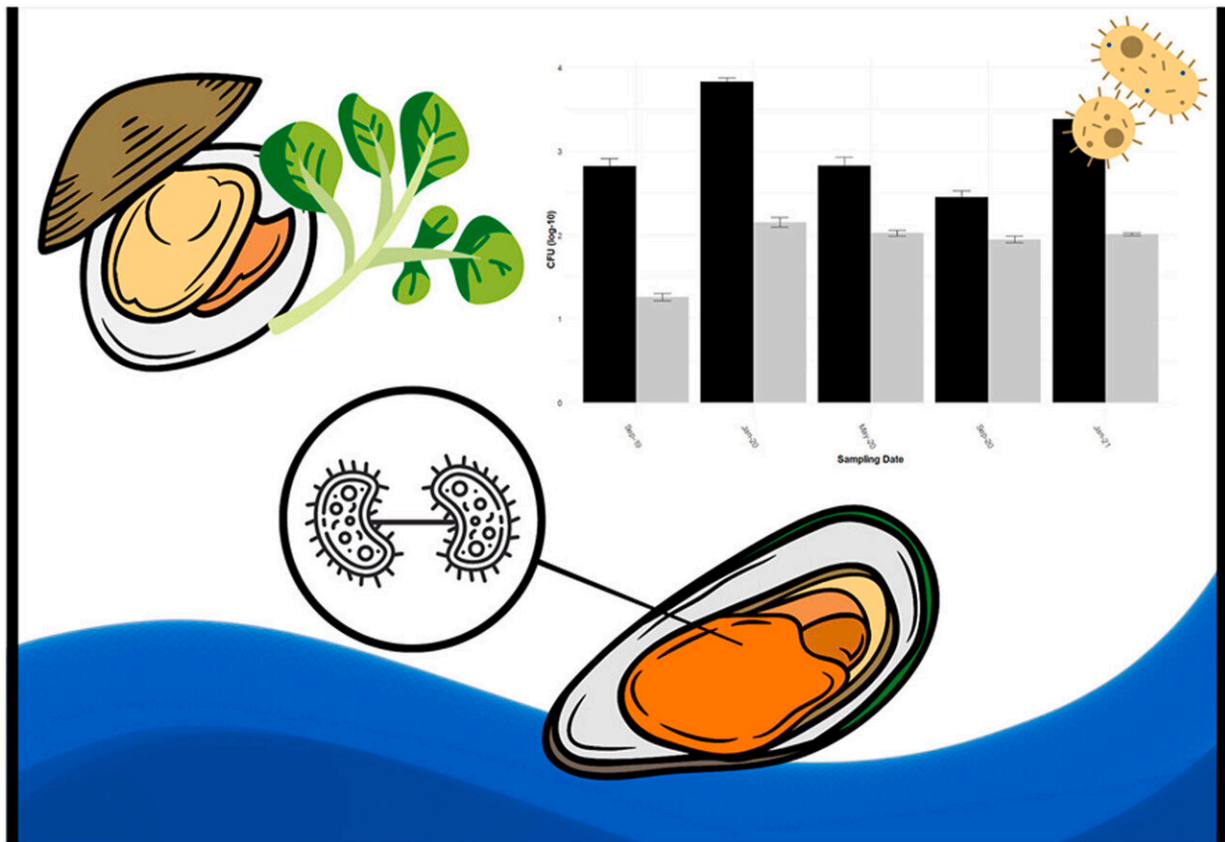


Antibiotic-resistant bacteria found in Canterbury cockles and watercress

July 18 2023



Graphical abstract. Credit: *Environmental Pollution* (2023). DOI: 10.1016/j.envpol.2023.122155

Antibiotic-resistant bacteria has been detected in wild cockles and watercress, putting communities who rely on mahinga kai at risk of

E.coli infections that are resistant to treatment.

Researchers found that Canterbury waterways contained high levels of fecal bacteria, and the food sources had up to 60-times more bacteria than the water. Up to one in five of them were resistant to the most commonly-prescribed antibiotics in Aotearoa, and some were resistant to antibiotics used as a last resort.

Authors of the study say that as the amount of [antibiotic resistant bacteria](#) in the environment increases, existing measures of water quality will increasingly underestimate the risks to people who harvest from our waterways. The research is published in the journal *Environmental Pollution*.

Professor Jack Heinemann says, "Wild food (mahinga kai) [harvesting](#) puts people and communities at risk of contracting antibiotic resistant infections, but nobody is monitoring this risk or providing specialist guidance to those who rely upon wild foods.

"Wild food harvesting is an important source of nutrition, especially for indigenous communities, and an intergenerational 'classroom' for sharing cultural knowledge and skills. All communities may rely more heavily on wild food harvest during a disaster, such as earthquakes or regional flooding.

"But we found that wild foods are also where antibiotic resistant bacteria concentrate, putting vulnerable [communities](#) at heightened risk.

"We believe that existing water safety guidance is inadequate to address additional risk from [antibiotic resistance](#). We argue that a One Health approach is needed to maintain the benefits of harvesting wild foods."

More information: Sophie van Hamelsveld et al, Indigenous food

sources as vectors of *Escherichia coli* and antibiotic resistance,
Environmental Pollution (2023). [DOI: 10.1016/j.envpol.2023.122155](https://doi.org/10.1016/j.envpol.2023.122155)

Provided by University of Canterbury

Citation: Antibiotic-resistant bacteria found in Canterbury cockles and watercress (2023, July 18)
retrieved 2 May 2024 from
<https://phys.org/news/2023-07-antibiotic-resistant-bacteria-canterbury-cockles-watercress.html>

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