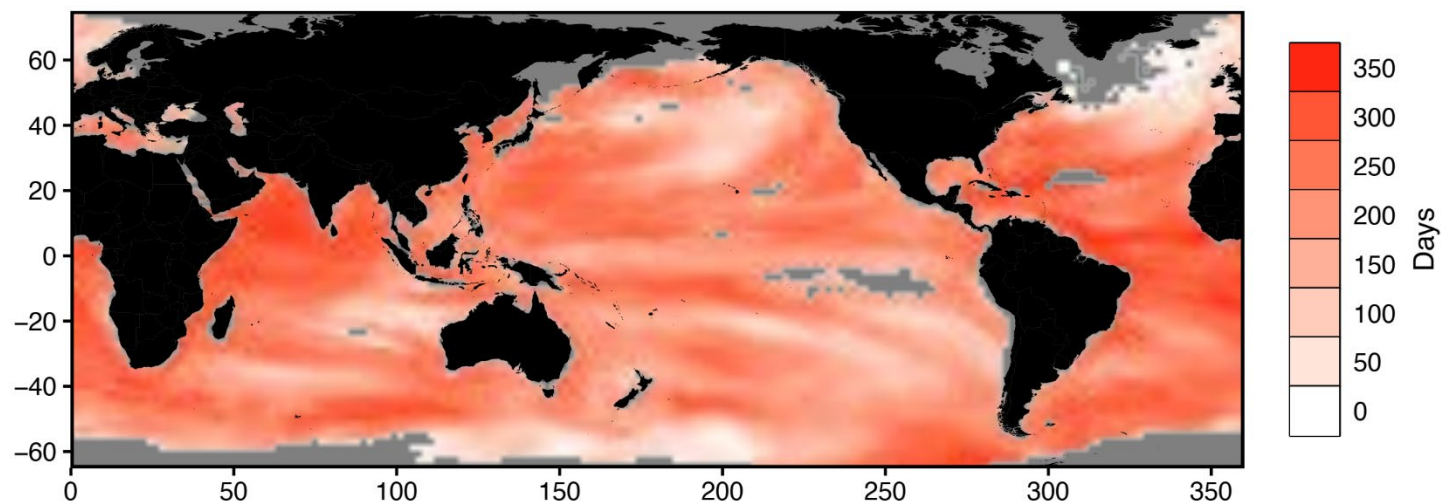


Press release

For immediate release

## HKU Ecologists Warn That Marine Heatwaves Pose an Underestimated Threat to Public Health

7 September 2026



*Image 1: The average number of days of marine heatwaves annually projected for mid-century. Image courtesy Prof. Ben Harvey.*

Researchers from the School of Biological Sciences and Swire Institute of Marine Science (SWIMS) at The University of Hong Kong (HKU), in collaboration with Adelaide University, have called for marine heatwaves to be recognised as a public health issue.

The research, published in *Nature Sustainability*, highlights that marine heatwaves not only damage marine ecosystems but can also intensify extreme weather, disrupt fisheries and aquaculture, reduce seafood supplies and threaten coastal livelihoods, ultimately posing significant risks to human physical and mental health.

### How Marine Heatwaves Affect Human Health

Marine heatwaves, prolonged periods of unusually high ocean temperatures, are becoming more frequent, longer-lasting and more intense as the climate warms. While their impacts on marine ecosystems are well documented, their consequences for human health remain largely overlooked.

#### Key Impacts Identified

- **Extreme weather:** Higher ocean temperatures can contribute to more intense storms and flooding, increasing the risk of injury, death, and displacement.
- **Food safety:** Marine heatwaves can increase harmful algal blooms that contaminate seafood and pose health risks.

- Food security and nutrition: Damage to fisheries and aquaculture can reduce seafood supplies, particularly affecting communities that rely heavily on marine resources.
- Livelihoods and mental health: Damage to marine ecosystems and loss of income can contribute to stress, anxiety, grief and uncertainty.
- Ocean-dependent communities: The impacts are particularly relevant in Asia, where hundreds of millions of people depend on the ocean for food, livelihoods and cultural practices.

“The devastating effects of marine heatwaves on marine ecosystems have been recognised for some time. What has been missing from the conversation is what these events mean for people. We are only just beginning to understand how these environmental impacts can have large negative effects on human health,” said Professor Bayden RUSSELL, Associate Professor of Ecology & Biodiversity and senior author of the paper.

He added: “For many people, the ocean is much more than a place for recreation. It provides food, income, cultural identity and a sense of place.” These close connections to the ocean mean that damage to marine ecosystems can also have significant psychological impacts. “When marine heatwaves damage coral reefs, fisheries and other marine resources, communities can experience grief, anxiety and uncertainty about the future. These mental health impacts are likely to be substantial, but they remain largely unrecognised and understudied.”

The researchers argue that governments and public health agencies should begin treating marine heatwaves much like land-based heatwaves. This includes incorporating marine heatwave forecasts into public health planning, considering health impacts in marine and coastal management, and strengthening collaboration between ocean scientists, health authorities and resource managers.

Dr Laura FALKENBERG of Adelaide University said: “Recognising these health impacts is the first step towards better protecting communities.”

“As marine heatwaves become increasingly common, we need to move from simply documenting impacts after they occur to preparing communities in advance. Better planning today can reduce future health risks.”

For details of the research, please refer to the journal paper “[Recognising the human health impacts of marine heatwaves](#)”.

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