

What does high-quality research say about the environmental effects from radio waves

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Australian government research scientists and Swinburne University have published a paper that finds good quality studies show no effect from radio waves on plants and animals, while poor-quality studies show an effect.

The systematic map, [published](#) in the *International Journal of Environmental Studies* in July 2024, was led by the Australian Radiation Protection and Nuclear Safety Agency's (ARPANSA) Health Impact Exposure Assessment Assistant Director Associate Professor Ken Karipidis.

"The findings indicate that there is no substantiated evidence that radio wave exposure below safety limits adversely affect plants and animals," A/Prof Karipidis said.

From a pool of over 26,000 studies, only 334 articles were identified as being eligible to be included into the systematic map and for further analysis in this study. Out of those 334 studies, only a few were deemed good quality by the authors.

Good quality studies used rigorous scientific methods such as appropriate exposure [assessment](#) and suitable comparison/control groups.

The poor-quality studies in the paper had flaws such as having no controls in the experiments, using poor radiation exposure assessment, and not considering other environmental factors like pollution.

ARPANSA's Dr. Chris Brzozek was the review's lead author.

"While the good quality studies add to the international scientific community's consensus on radio wave effects on plants and animals, the number of those studies was limited and that's why we need more research to resolve any doubts," Dr. Brzozek said.

"It is ARPANSA's assessment and the international scientific consensus that there are no [health effects](#) to [plants](#) and [animals](#) from low level radio wave exposure."

More information: Chris Brzozek et al, Investigating the impact of anthropogenic radiofrequency electromagnetic fields on animals and plants in the environment: analysis from a systematic map, *International Journal of Environmental Studies* (2024). [DOI: 10.1080/00207233.2024.2375861](#)

Provided by Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)

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