

Mammals metabolize some pesticides to limit their biomagnification

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This is some lichen. Credit: Morris, A. D., Muir, D. C.G., Solomon, K. R., Teixeira, C., Duric, M. and Wang, X. (2014), Trophodynamics of current use pesticides and ecological relationships in the Bathurst region vegetation-caribou-wolf food chain of the Canadian Arctic. *Environmental Toxicology and Chemistry*. doi: 10.1002/etc.2634

The concentrations of many historically used, and now widely banned,

pesticides and other toxic chemicals—called legacy contaminants—can become magnified in an animal that eats contaminated food; however, a new *Environmental Toxicology & Chemistry* study has found that Arctic mammals metabolize some currently used pesticides, preventing such 'biomagnification.'

Researchers who studied the vegetation-caribou-wolf food chain in the Bathurst region of Canada say that currently use pesticides enter the food chain and become concentrated in vegetation, but the evidence shows that they are not biomagnified through the diets of their consumers.

"Since these [pesticides](#) replaced some legacy contaminants that do biomagnify in similar food chains, this is good news for the wildlife and the people of the Arctic who survive by hunting caribou and other [animals](#)," said first author Adam Morris. "But this is still only a small part of a much larger picture regarding replacement contaminants and how they're behaving compared with their legacy counterparts."

More information: Morris, A. D., Muir, D. C.G., Solomon, K. R., Teixeira, C., Duric, M. and Wang, X. (2014), Trophodynamics of current use pesticides and ecological relationships in the Bathurst region vegetation-caribou-wolf food chain of the Canadian Arctic. *Environmental Toxicology and Chemistry*. [DOI: 10.1002/etc.2634](https://doi.org/10.1002/etc.2634)

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