Toxic PFAS chemicals found in little penguin colonies around Tasmania, new study says

Mel Wells holds a little penguin while on King Island. (Supplied: Jaslyn Allnut)© Provided by ABC News (AU)

A new study has found toxic PFAS chemicals in the nesting soils and blood of little penguin populations around Tasmania.

The study, led by the University of Tasmania's School of Natural Sciences, tested for substances known as PFAS in the penguins and their habitat on Tasmanian coastlines — from the Derwent estuary to King Island.

The study's lead author, PhD candidate Mel Wells, said she and her team took 50 soil samples from 17 little penguin habitats, before taking 45 blood samples from the penguins at nine of the locations.

"I found PFAS in all [the sites] except one," she said.

"I found PFAS in 76 per cent of soil samples and 82 per cent of blood samples."

The chemicals were found in all samples taken from the sites in Burnie and the Derwent Estuary in Hobart.

What is PFAS?

PFAS, or per- and poly-fluoroalkyl substances, is a term used to describe more than 500 manufactured chemicals.

The substances are sometimes referred to as "forever chemicals" because they do not break down easily.

They were previously used in firefighting foam and metal plating, and are still commonly found in cosmetics, sunscreen and fast food packaging.

Some US and Europe-based studies have made a connection between PFAS exposure to diseases such as cancer, but in Australia there has been no conclusive evidence.

The School of Natural Sciences researchers also looked at the potential health impacts of exposure to the chemicals, but Ms Wells said more research was needed to better understand the danger.

"There's so much we don't know," she said.

"We really need more research into the dissemination of PFAS in the environment, in species, and then what that means, and what the impacts are," she said.

"As coastal urbanisation increases, and human populations continue to encroach on wildlife habitats, eco-toxicology studies are increasingly important to understand the impact we're having on our wildlife populations."

Ms Wells said more research was needed into how the penguins were coming into contact with PFAS chemicals and what it could mean for the food chain over time.

"This is a real health risk to biological life, especially to marine predators like seabirds, seals and dolphins," she said.

"And because we consume seafood exposed to PFAS, it's also a risk to human health."

'Next step' is looking at how PFAS chemicals get into the environment

Derwent Estuary Program chief executive Ursula Taylor said the study results, while not surprising, were "sobering".

"We know that the estuary has a compromised environment because of the legacy of heavy metal contamination … so it's not entirely surprising that we're seeing these chemicals show up," Ms Taylor said.

"I guess the challenge is now: what can we do?

"The next step in research is understanding where these chemicals are coming from and, because they're so persistent, how can we prevent them from entering the environment in the future."

In 2018, the Tasmanian government signed an intergovernmental agreement on responding to PFAS contamination.

The state's Environment Protection Authority said the government has been "steadily phasing out" the importation of products containing PFAS.

The Tasmania Fire Service no longer uses firefighting foams that contain PFAS, and has destroyed all legacy stocks of PFAS foams, according to its latest annual report.

This article appeared on ABC.net.au

https://www.abc.net.au/listen/programs/worldtoday/chemicals-found-to-be-widespread-in-tasmanian-penguins/103363952?utm_campaign=abc_listen&utm_content=link&utm_medium=content_shared&utm_source=abc_listen