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SCHOLARSHIP ENSURES CQUNI STUDENT HAS THE MEASURE OF MICROPLASTICS IN FITZROY WATER

The presence of microplastics in our waterways will be put under the spotlight by CQUniversity Honours student, Tiffany Brown, thanks to a scholarship from Fitzroy Partnership for River Health.

Recent international research revealed that the average human is consuming the equivalent of a credit card in microplastics through their diet every week.

Through her studies Ms Brown is aiming to localise the understanding of the impact of microplastics on the environment by quantifying the amount released per litre of water from the Rockhampton region's waste water treatment plants.

"These plants are releasing millions of litres of waste water daily directly into the Fitzroy River, however, only two studies have been conducted in Australia – both in Sydney – into microplastics in our water," Ms Brown said.

"There is much to learn about the impacts microplastics have once released into the environment, but what is known already is that microplastics are regularly ingested throughout the food chain due to their small size.

"Once ingested, microplastics can cause false satiation, slow metabolic rates, decrease reproductive rates, disrupt growth and development and restrict the ability to store energy. These damaging effects can directly lead to death."

Fitzroy Partnership for River Health includes organisations from government, industry, research and community who all have an interest in the health of Fitzroy Basin waterways.

Fitzroy Partnership for River Health Executive Officer, Dr Leigh Stitz said the partners share a common goal of providing a more complete picture of river health by contributing funding and sharing monitoring data to produce annual waterway health report cards for the Fitzroy Basin.

"We award an annual \$2000 scholarship to contribute towards research expenses, through our HeART of the Basin Scholarship Programme to CQUniversity research students studying Honours, Masters by Research or PhD, studying topics relating to improving waterway health in the Fitzroy Basin and we are proud to support Ms Brown's research this year," Dr. Stitz said.

Ms Brown said there was currently no standard method of collection or analysis of microplastics, but through her research she was aiming to combine and refine the most promising methods available, with an aim to propose an efficient and reproducible methodology.

"I believe waste water treatment plants have the potential to control or even prevent the output of microplastics into the environment," Ms Brown said.

"By assessing the release of microplastics from Rockhampton's plants, we hope to provide managers with the information necessary to determine the scale of the problem and an opportunity to be proactive against what is fast becoming a prominent social and environmental issue."

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