

Scientists boost endangered freshwater mussels population

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Queen's conservation scientist Conor Wilson pictured with one of the tagged freshwater mussels released back into the river as part of a 12-year research project. Credit: Queen's Press and PR Unit

The endangered freshwater mussel species has been given a welcome boost by scientists from Queen's University Belfast following a 12 year cultivation project.

Over 300 of the [mussels](#), which are threatened in many parts of Europe and North America, have been released back into the wild at a range of secret locations in Northern Ireland.

And in a novel development, the conservation scientists from Queen's will be able to keep tabs on the precious mussels after attaching tags to

the outside of their shells. The Passive Integrated Transponders or PIT tags can be located by a receiver much like a [metal detector](#), meaning the researchers can then relocate the animals in the riverbed and monitor each mussel's progress.

Conor Wilson a PhD student at Quercus, Queen's research centre for biodiversity and conservation science in the University's School of Biological Sciences said: "Queen's had been working alongside experts at Ballinderry Fish Hatchery in Co. Tyrone since 1998 in order to cultivate these precious but very slow growing mussels. They can grow to 17 cm in length and can reach 285 years old but in Northern Ireland they are currently teetering on the brink of extinction and the only counties the mussels currently exist in are Tyrone and Fermanagh.

"Freshwater mussels are an important part of the ecosystem in many rivers as they filter water keeping it clean and clear. This improves the environment for other plants and animals, and ultimately, humans.

"Our hope is that eventually, through a programme of breeding and tracking we will be able to see the equilibrium restored in these rivers and bring the levels of mussels back to what they were 100 years ago, before they were affected by a variety of factors including [overfishing](#) and [habitat degradation](#)."

The year-long release programme of the mussels has just been completed and those involved in the project say it has been a big success. Dr. Dai Roberts, academic lead on the project said: "Ultimately, this work which has been funded by the Northern Ireland Environment Agency (NIEA), evaluates whether captive breeding and release is a successful means to halt the decline of severely depleted populations. We hope it will be a success and that it can be replicated in many other areas of need across Europe and beyond."

Provided by Queen's University Belfast

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