

Mudfish Sanctuary in Suburban Stream

One of the headwaters of the Avon River in Christchurch has been restored to provide habitat for the endangered Canterbury mudfish. A 150-metre section of tiny Okeover stream, which flows through the University of Canterbury at Ilam, was restored and 'opened' on World Environment Day.

Canterbury mudfish are one of four native mudfish species found in New Zealand. Related to galaxiids (whitebait), they are unusual in being adapted to streams with fluctuating water levels. Mudfish can breathe air or leave the water altogether if it becomes too stagnant. They can survive for months in moist burrows in mud if a stream

dries up completely.

A PhD student involved in the project, Leanne O'Brien, says the Canterbury mudfish was once common but is now restricted to a handful of sites. All but one of these is vulnerable to disturbance such as trampling by stock or changes in land use.

Okeover stream was identified as a promising site because it dries up at times. It is hoped this tough environment will give mudfish the edge they need over introduced species such as trout, Leanne O'Brien says.

In a joint project between the Christchurch City Council and the University, the streambed has been shaped into a series of deep pools that will retain water



LYNETTE HARTLEY

Artificial mudfish habitat built with stones in Okeover Stream, a source of the Avon River in Christchurch. Water levels in the spring-fed stream vary through the year, and mudfish find sheltering habitat among the baskets of stone.



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during periods of low flow.

A novel idea, sparked by the zoology department of the University, was to use gabion baskets for the banks of the pools. These baskets, which are full of river rocks, are more normally used in road works and river control. The baskets extend well back under the banks of the stream. They will provide the mudfish with refuges and access to the damp mud under the banks as the stream dries up.

Between the pools the stream flows down riffle sections. Each of these has backwater areas for young mudfish. Suitable native aquatic plants have been planted for mudfish to spawn on.

Mudfish will be introduced to

the stream once the plants have become established and approval has been obtained from the Department of Conservation and tangata whenua.

A city council restoration planner, Rachel Barker, says the Council's vision is to have a thriving population of Canterbury mudfish located on the University campus where their progress can be monitored and they can be cared for in the long term.

'It will be a great achievement to apply our learning to other places where mudfish can gain a stronghold as well,' she says.

— LYNETTE HARTLEY