MEDIA RELEASE

Mount Roland
LAND CARE

Helping Tasmania's freshwater wildlife move safely

In short:

Beneath our roads are hidden roadblocks for aquatic wildlife

Mount Roland Land Care trials practical solutions to improve "water highways" for endangered Giant Freshwater Crayfish and other aquatic species

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Hidden below many roads are culverts — the pipes and tunnels designed to carry creeks and streams underneath roadways. For aquatic animals, these structures can become vital "water highways", connecting habitat and allowing movement upstream and downstream. But if poorly designed, they can also become roadblocks.

Mount Roland Land Care (MRLC) has recently completed a four-month community research project trialling practical modifications aimed at improving culvert access for the endangered Giant Freshwater Crayfish (GFC) — with encouraging results that may also benefit other aquatic wildlife.

Supported by funding from the Wettenhall Environmental Trust, the study used remote sensor cameras operating continuously across five sites between February and May 2026 to monitor how wildlife interacted with culverts and experimental modifications.

The work builds on increasing efforts by government agencies, researchers and other organisations to improve aquatic passage through culverts and waterways.

“What’s good for the crayfish appears to be good for other aquatic species too,” said Greg Taylor, President of Mount Roland Land Care.

“By improving access for Giant Freshwater Crayfish, we’re also seeing benefits for platypus and rakali. These species all rely on connected waterways to move, feed and survive.”

Previous Mount Roland Land Care research showed that Giant Freshwater Crayfish are willing to use culverts if conditions allow safe passage. However, some common culvert designs can create challenges.

Smooth culvert surfaces may provide little grip for animals attempting to move upstream against flowing water, while “perched” culverts — where the outlet sits above the water level below — can create difficult barriers.

Rather than simply documenting these challenges, the new study focused on testing practical solutions.

Researchers trialled simple rock ramps beneath culverts to improve access and installed roughened surfaces inside culvert pipes to restore traction.

The modifications used readily available and relatively inexpensive materials including local rocks and linked rubber floor mats.

Remote camera footage suggests aquatic animals adapted quickly to the modified structures, using them for both upstream and downstream travel.

“The exciting part is that some of these solutions are simple and potentially low-cost,” said Greg Taylor.

“In many situations we’re not talking about major engineering works. Small changes may make a significant difference in reconnecting aquatic habitat.”

Mount Roland Land Care says the project demonstrates how community-based research can contribute practical ideas to improving freshwater connectivity and ecosystem health.

The organisation is now compiling these preliminary findings into a detailed report that will soon be made widely available.

Further information:

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GFC moving upstream over rubber mats. Picture credit: Mount Roland Land Care

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