



MEDIA STATEMENT

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National Carp Control Plan welcomes new research paper

The National Carp Control Plan (NCCP) welcomes new research exploring the impacts of Cyprinid herpesvirus 3 ('the carp virus') on invasive carp populations in North America in the journal *Biological Invasions*¹, and led by local Australian scientist Dr Ron Thresher.

Dr Thresher and colleagues reviewed major carp die-offs to understand the virus's effects on carp numbers. In all study locations, the virus had entered carp populations unintentionally, rather than through a targeted biocontrol program.

Data on carp kills were limited globally, but the study provided useful insights into the virus's behavior in natural ecosystems, and would assist the National Carp Control Plan's (NCCP) assessment of opportunities for the control of carp in Australia, according to NCCP Coordinator Matt Barwick.

"In some study sites, virus-induced kills were reported to have limited long-term effect on carp numbers, but one site showed steady declines in carp abundance and improved native fish communities," Mr Barwick said.

"Dense carp aggregations appeared to be a factor in promoting increased mortality, as did water temperature and the timing of the virus release. Once carp had declined, native fish populations were observed to rebound, and possibly assist in ongoing suppression of carp numbers by feeding on them".

Mr Barwick drew comparisons with Australia's experience of rabbit control, where robust research informed the use of myxoma virus and rabbit calicivirus as biocontrol agents.

"Detailed scientific understanding of these two viral agents for rabbits enabled extremely successful long-term control of this pest species," he said.

"For example, early observations of calicivirus overseas showed limited impact on rabbit numbers in the United Kingdom, whilst it was observed to significantly suppress rabbit populations in Spain. Equally, initial trials of the myxoma virus were shown to be unsuccessful until researchers came to understand how best to aid transmission of the virus.

"In the same way, it is vital that we understand the circumstances under which the carp virus has helped to suppress carp overseas so that we can better plan for potential carp biocontrol in Australia. Case studies where carp

¹ Thresher, R.E., Allman, J. & Stremick-Thompson, L. (2018). Impacts of an invasive virus (CyHV-3) on established invasive populations of common carp (*Cyprinus carpio*) in North America. *Biological Invasions*, DOI: <https://doi.org/10.1007/s10530-017-1655-2>.

numbers weren't significantly reduced also teach us a lot about critical factors underpinning a successful biocontrol program.

"This information, along with data generated from our research program to estimate carp biomass, help to determine: how the virus will spread, risks to water quality and biodiversity; the practicalities of clean-up, as well as understand the likely long-term benefits of carp biocontrol, all of which will shape the National Carp Control Plan," Mr Barwick said.

Operating through the Fisheries Research and Development Corporation (FRDC), the \$15 million NCCP will provide a detailed recommendation to Australian governments on the suitability of biocontrol measures in December 2018.

In addition to the research, the NCCP is undertaking an extensive stakeholder engagement and community consultation program. Consultation dates and locations can be viewed at www.carp.gov.au

The NCCP will also make available the findings of all research projects as they become available via the NCCP website.

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