

The Australian government's plan for biocontrol of the common carp presents several risks

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Belgian, English and Australian scientists are calling on the Australian authorities to review their decision to introduce the carp herpes virus as a way to combat the common carp invading the country's rivers. In a letter published in the journal *Science*, they not only believe that this measure will be ineffective, but that it also represents a risk to ecosystems.

On a global scale, the common carp (*Cyprinus carpio*) is one of the most important fish [species](#) in fish farming. Its annual production ranges between 4 and 5 million tonnes. Initially introduced to Australia for production in fish farms, the species has gradually colonised the rivers to the point of dominating the indigenous species. One of the methods proposed by the Australian government to reduce the number of carp is to release into rivers a virus deadly to this species, the cyprinid herpesvirus 3 (CyHV-3), also called the Koi herpesvirus (KHV). However, scientists note that data currently available on the carp's biology, the pathogeny of the virus and the ecology of Australian rivers suggest that this tactic will not be effective, and could even represent a risk to ecosystems. These conclusions are published in *Science*.

Before the large-scale release of the CyHV-3, which will be costly and irreversible, assessments must be carried out on the actual capacity of the virus to sustainably reduce Australian carp populations living freely without harming the indigenous ecosystems.

The authors advocate for the introduction of limited testing to safely assess if the [virus](#) can effectively control carp populations without harming ecosystems. The opinion of the scientists is notably based on work carried out for over a decade by Professor Alain Vanderplasschen from the Immunology and Vaccination Laboratory at the University of Liège who is behind the development of the first vaccine against CyHV-3.

"The discovery in our laboratory of the beneficial role of the behavioural fever expressed by carp as well as other recent results indicate that the Australian government's biocontrol plan will not meet its objectives. This may even cause serious damage to the [ecosystems](#)," says Professor Alain Vanderplasschen.

"By discussing this in *Science*, one of the world's most respected scientific journals, we hope that the warning will not be ignored by the Australian authorities," notes Professor Alain Vanderplasschen.

More information: Jennifer Sills et al, Biocontrol of invasive carp: Risks abound, *Science* (2018). [DOI: 10.1126/science.aar7827](https://doi.org/10.1126/science.aar7827)

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