THE AUSTRALIAN GOVERNMENT'S PLAN FOR THE BIOCONTROL OF THE COMMON CARP PRESENTS SEVERAL RISKS

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 having colonized the country's rivers. They not only believe that this measure will be ineffective but that it also represents a risk to ecosystems.

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 having colonised 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 a virus which is deadly to this species, the cyprinid herpesvirus 3 (CyHV-3, also called the Koi herpesvirus or KHV) in rivers.

However, scientists note that data currently available on the carp's biology, the pathogeny of the virus and the ecology of Australian rivers suggests that this tactic will not be effective and could even represent a risk to ecosystems.

Before the large-scale release of the CyHV-3, which will be costly (the plan proposed has a budget of 18 million Dollars) and irreversible, assessments must be carried out on the virus' actual capacity 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," explains Professor Alain Vanderplasschen. ■

STORY SOURCE: MATERIALS PROVIDED BY UNIVERSITY OF LIEGE
DATE: FEBRUARY 22, 2018