

## **Controlling Marbled Crayfish in an urban pond: a dual approach involving intensive trapping and predator introduction**

Frédérique Steen<sup>1</sup>, Kevin Scheers<sup>1</sup>, Geert De Knijf<sup>1</sup>

<sup>1</sup>Research Institute for Nature and Forest, Herman Teirlinckgebouw, Havenlaan 88 bus 74, Brussel, Belgium

The Marbled Crayfish is a newly introduced invasive species in the Flanders region of Belgium, first sighted in 2017. The species had preliminary been sighted in artificial ponds in urban areas, suggesting its introduction through the release of aquarium pets. Marbled Crayfish have not yet spread to open water systems in Belgium, presenting an opportunity to experiment with control measures within a closed system. To manage this species within the urban park pond in the municipality of Westende, a pilot study was developed. The municipality did not approve of draining the pond, and the use of chemical agents is prohibited in aquatic environments in Flanders. To comply with these restrictions, we developed an alternative management measure to decrease crayfish densities and to minimize the risk of spread. A dual approach will be implemented, involving an intensive catch event followed by the introduction of two fish species, *Cyprinus carpio* and *Lota lota* to further suppress the population. Electrofishing and baited crayfish traps will be used to achieve a proportional reduction in densities at the start of the reproductive season. The introduction of fish aims at preventing juvenile crayfish from reaching the reproductive phase, by creating a year-round predation pressure with common carp predating from spring to autumn, and burbot throughout the winter. This dual approach will be tested to determine its effectiveness in controlling Marbled Crayfish densities. Preliminary results obtained after the first two phases of the study, namely population reduction and the introduction of the common carp, will be presented.

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