

QuaggaMonitor



DNA-based detection for invasive mussels

What is Quagga?

The Quagga mussel (*Dreissena rostriformis / bugensis*) is a quickly growing, invasive species of mussel known for its devastating impact on North American and European aquatic habitats. Originating from the Black Sea, it is being spread by human activity (like freight ships) and efficiently colonizes new freshwater ecosystems.

The mussels reproduce rapidly, causing shifts in biodiversity and disrupting food chains. They have razor-sharp shells that can cut the feet of swimmers, they clog drinking water pipes, threaten water quality, and overgrow submerged infrastructure. These and other consequences of their unhindered growth and spread affect lake and river ecosystems, the public sector, and the economies of invaded areas.

What can be done?

Prior to designing mitigation strategies, monitoring of water bodies is crucial to detect the potential presence of the Quagga mussel in its early stages. This shall allow enough time to establish mitigation strategies. Infested water bodies may require constant monitoring.

Visual observation requires costly diving operations and may not be a feasible option for long-term monitoring.

In comparison, detection and monitoring with eDNA-based methods are accurate, scalable, and low-cost.

What can SimplexDNA offer?

Easy and robust DNA-based monitoring solution that can detect and quantify amount of DNA present in lakes and rivers. Our QuaggaMonitor Service detects small traces of genetic material left by the mussels in the water, which is called environmental DNA or eDNA.



[See demo report figure here](#)

SimplexDNA®

Service Highlights

- Easy on-site sampling method (non-expert friendly)
- Accurate analysis in our Swiss lab
- Suitable for every lake, river, water body
- Also for boats, pipe systems or other infrastructure
- Confirm the presence of Quagga mussel
- Estimate the level of Quagga mussel infestation by quantification of DNA in environment

Service options include

- Sample collection kit for water for self-sampling
- Plan and instructions for sampling
- DNA extraction and qPCR assay in our lab
- Final report and recommendation for monitoring

[Contact us for a quote](#)



SimplexDNA detects Quagga for Swiss governmental authorities:

