# Steps toward the practical use of a system for water quality monitoring using heliozoon cells

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**SUMMARY**

We have recently developed a biological monitoring system for detecting aquatic toxicants using *Raphidiophrys contractilis*, a heliozoon, as an indicator organism. This system employs adhesiveness of the heliozoons to the substratum as a measure of health of the organism. A working prototype was built at low cost (ca. US$5,000) and applied to a laboratory test to verify the operation of the developed computer program and the flow-through type chamber designed for toxicity testing. Test results revealed that the system is highly sensitive to heavy metals (e.g. $2 \times 10^{-6}$ M $HgCl_2$), demonstrating that its development is close to practical use for managing drinking water quality.