

## Bio-monitoring system for aquatic hazards using heliozoons

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A biological monitoring system for toxicants in water has been developed by using the centrohelid heliozoon *Raphidiophrys contractilis* as an indicator organism for water quality. A flow-through type chamber was developed for toxicity testing on *R. contractilis*. It was placed on a light microscope stage, and changes in the heliozoon's axopodial length were continuously monitored with a CCD camera. The image was digitized, and analyzed to quantify the length of the axopodia. The test results revealed that this monitoring system has a high sensitivity and durability, enabling us to quickly and easily detect toxic substances in water.