Abstract

The effect of a sublethal concentration of cadmium (0.06 mg/L) was tested on the phototactic behavior of a positively phototactic *Daphnia magna* clone. In experiments lasting 10 min, using animals that had been exposed to cadmium for 1 to 6 h, it was observed that the animals became significantly less positively phototactic after 4 h of exposure to 0.06 mg/L cadmium compared to control animals that had not been exposed to cadmium. In flow-through experiments that lasted for 6 h and during which there were repeated measurements, there was again a significant effect of cadmium exposure on the phototactic behavior of the animals. Irrespective of treatment, time had a significant effect. Results suggest that phototactic behavior can be used to detect sublethal concentrations of pollutant within a few hours, in short-term as well as in longer-lasting experiments with continuous flow-through and repeated stimulation of the animals.