

## **Effect of Water Acidification on the Calcium and Magnesium Concentrations in Caddis Fly Larvae**

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### **Abstract**

Data on small lakes in the Finnish Laplandia are used to examine the dependence of Ca and Mg concentrations in caddis fly larvae (Polycentropodidae family) on the concentrations of these elements in water, pH, and the extent of water humification. The concentration of Ca is shown to be virtually independent of its concentration in water, and Mg concentrations are found to be inversely related. The coefficients of accumulation demonstrate a strong inverse dependence on the concentrations of these cations in water, as well as on water pH. The decrease in Ca and Mg concentration in the larvae caused by an increase in pH is shown to be slower than that in water, which is an indirect indication to the presence of mechanisms that maintain the macroelement concentrations in the living organisms at the level required for their normal functioning under the conditions of anthropogenic acidification of water bodies.

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