

# Toxicity of a soluble peptide from *Microcystis* sp. to zooplankton and fish

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**SUMMARY.** A soluble cell fraction lethal to *Daphnia magna* was isolated by the disruption of net phytoplankton from eutrophic Aculeo Lake. The phytoplankton of this lake is dominated by *Microcystis* sp. The soluble fraction was also lethal to common native zooplankton, including the rotifers *Keratella* sp., *Trichocerca similis*, the copepod *Boeckella* sp., and the cladoceran *Chydorus sphaericus*. In addition, a partially purified soluble component of the lethal fraction caused the death of the fish *Gambusia affinis*. The specific toxicity of the soluble fraction from phytoplankton varied four- to six-fold seasonally with peaks during periods of warm temperature. Our results suggest that releases of a toxic peptide from *Microcystis* sp. may be the cause of massive fish kills at the study site, Aculeo Lake. Copyright © 1990, Wiley Blackwell. All rights reserved