

EVALUATION OF THE TOXICITY OF SYNTHETIC PYRETHROIDS TO RED SWAMP CRAYFISH (*PROCAMBARUS CLARKII*, GIRARD 1852) AND COMMON CARP (*CYPRINUS CARPIO*, L. 1758)



The acute toxicity of three synthetic pyrethroids (Cypermethrin, Deltamethrin and Cyfluthrin) to red swamp crayfish (*Procambarus clarkii*) and the mortality after long-term exposition of young common carp to Deltamethrin were determined in standardized laboratory tests. The aim of this study was to evaluate the possibility of limiting the expansion of crayfish by the use of these compounds and the implications of their use on fish. Red swamp crayfish experienced high sensitivity to pyrethroids as expressed by the LC50-24h: 0.14 µg/l for Cypermethrin, 0.17 µg/l for Cyfluthrin and 0.22 µg/l for Deltamethrin. No mortality was observed in common carp during the long term (24 days) exposure test at initial concentration of 22.0 µg/l of Deltamethrin. The concentrations of Deltamethrin in muscle of crayfish and common carp were under the limit of quantification of the gas-chromatographic method in all the tests. The results suggest that synthetic pyrethroids may be suitable to control or to eradicate nuisance populations of red swamp crayfish, in small and limited areas.

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