

# NOTICE OF PUBLICATION

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AQUACULTURE & FISHERIES INNOVATION LAB

## RESEARCH REPORTS

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**Title:** Utilization of *Caridina nilotica* (Roux) meal as a protein ingredient in feeds for Nile tilapia (*Oreochromis niloticus*)

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**Abstract:** The effects of replacing fish meal with *Caridina nilotica* as a protein ingredient on growth performance, nutrient utilization, carcass, proximate composition and economic benefits in Nile tilapia (*Oreochromis niloticus*) culture was evaluated. Replacement of the FM with *C. nilotica* was done at 25%, 50%, 75% and 100% (D25, D50, D75 and D100) and the substitution effects was compared with the control diet (D0, 0% *C. nilotica*). After 140 days of culture, the best growth performance, nutrient utilization and economic benefits occurred in fish groups fed diets with 25% *C. nilotica* inclusion. However, growth performance in fish fed diets D50 and D75 were comparable with the control ( $P > 0.05$ ). At 100% substitution level of FM with *C. nilotica*, the growth performance and fish survival was lower than control. Protein and lipid contents in the fish and their digestibilities were highest in diet

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D25 and decreased with increasing levels of substitution of FM with *C. nilotica*. This study demonstrates that utilization of local protein sources (*C. nilotica*) can be effectively used to replace up to 75% of FM in the diets without compromising growth performance, survival, nutrient utilization and economic benefits in *O. niloticus* culture.

This abstract was excerpted from the original paper, which was in the *Aquaculture Research* (2013), 46(2): 1-12.

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